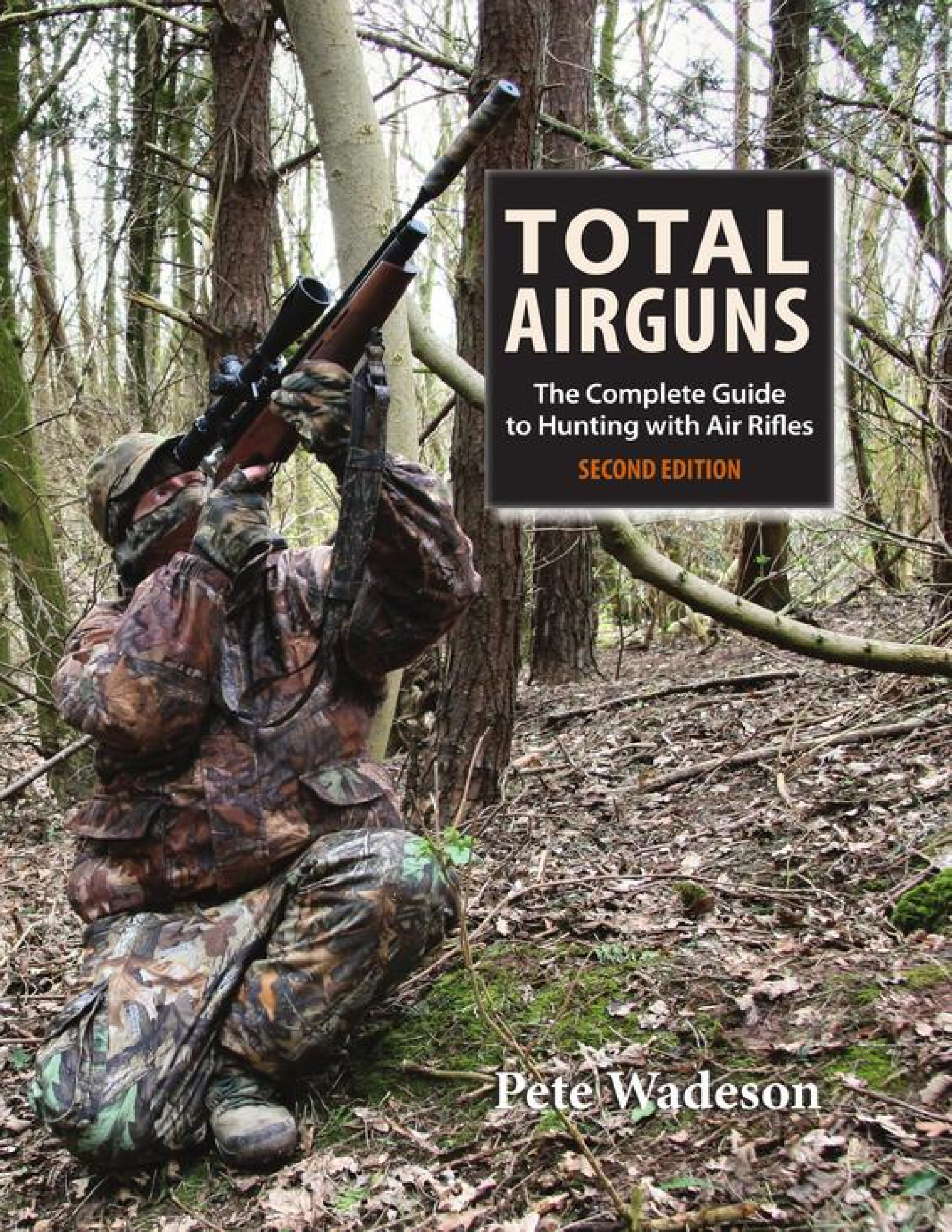


A person wearing full-body camouflage gear is kneeling in a forest, aiming an air rifle. The person is positioned on the left side of the frame, with their back to the camera. The forest has many thin, light-colored tree trunks and a ground covered in fallen leaves and twigs. The lighting is natural, suggesting daytime.

TOTAL AIRGUNS

The Complete Guide
to Hunting with Air Rifles

SECOND EDITION

Pete Wadeson

TOTAL AIRGUNS

The Complete Guide to Hunting with Air Rifles



Pete Wadeson



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Farewell and Thanks

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Foreword

I didn't by any stretch of the imagination grow up in what you could term a rural area. Even so, it was considered the norm to be given your very own air rifle as a birthday or Christmas present when you reached your teenage years. It was, in a sense, a rite of passage – an acceptance by your parents and elders that you were growing up. In today's climate of rising crime and widespread anti-gun hysteria, fuelled by confused news media, it seems difficult to believe that those days ever existed. I'm sure many hunters of all shooting disciplines can identify with that.

Looking back to carefree times – 'blatting rats' with a break-barrel air rifle at the side of the canal with my mates – I would never have envisaged the day would come when I'd be writing such a comprehensive book on the now-serious discipline of hunting with an air rifle.

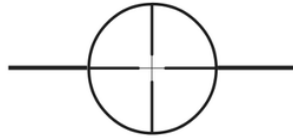
As I have been given this opportunity, I hope that what follows will be seen by the sensible non-shooting public, as well as my friends, associates and peers in the shooting fraternity, as a considered and well-informed book on the sport. Because that's what it is ... a sport. Additionally, there are many occasions when an air rifle of suitable power is a very effective tool for pest control, being widely used by professionals worldwide.

This book was first published in 2005, but due to the fast-moving pace of airgun technology, design, scopes, accessories, and because certain manufacturers and related companies have gone, to be replaced by equally as many new companies, I was rightly asked to revise and fully update the book.

My ethos remains the same and I still hope to dispel a few half-truths and wrong-headed ideas, and clear up what are often no more than fanciful hunters' tales. Truth to tell, even so-called airgun-hunting

‘experts’ like me return empty-handed, or only get the chance of one shot in exchange for a lot of effort. That’s just the way it goes.

But even though there is a certain element of luck in being successful, there are many ways to help put luck on your side. Putting in the practice, time and preparation will sway the odds in your favour. On the following pages I hope to help you to achieve just that.





Air rifle hunting is amongst the most challenging and demanding of the shooting sports

Introduction

In over two decades of sporting shooting I've used a great variety of sporting guns and calibres. Although I enjoy the challenge of taking woodpigeon on the wing with a shotgun, long-range rimfire work on rabbits, or full-bore foxing, rarely is the feeling of achievement greater than when I've taken a precision shot with a 12ft lb air rifle.

As it's such a demanding but rewarding form of shooting, it's hardly surprising that many coming into the sport, and even those not so new to airgunning, eventually try their shooting skills against live quarry. You need to know the law, not only pertaining to hunting with airguns, but also governing their ownership and general use, so a chapter devoted to the law as it currently stands can be found at the end of this book. However, as legislation can change it's advisable to keep yourself up to date by checking regularly with the relevant government departments – primarily the Home Office and DEFRA – and of course the latest literature on the subject. Books aren't as few as they once were, but can still date quite quickly with regard to the law; the shooting magazines do keep their readers constantly briefed on legal changes, though.

I must emphasise that it's the responsibility of every individual to know the law pertaining to hunting with airguns. It's no use having the appropriate kit, even if you have somewhere suitable to hunt over, if you don't know the can do's and can't do's. Ignorance of the law is never accepted as a defence by the police or the courts. All reputable shooting organisations have the appropriate legal guidelines available on request, so do make a point of requesting them and – most importantly – reading, memorising and adhering to them.

It is also the responsibility of those wanting to hunt to be able to recognise the quarry species that are deemed suitable for control with air rifles. All the legitimate pest species that airgun hunters are allowed to shoot are listed in the 1981 Wildlife & Countryside Act. However, since

the Act was passed, various species that were once included, now, due to a decrease in their population, are omitted. Most often this is due to factors such as a decline in habitat or a species-specific disease, resulting in the quarry becoming far lower in numbers than it once was – as is the case with the once-included starling. Certainly due to changes in the urban environment, the house sparrow is now wisely removed from the quarry list. This once numerous and most common of small birds has, in many parts of the UK, a much lower population than it ever had (although is thankfully now on the increase). At the time of writing, amongst the pests listed and appropriate to control with an air rifle with a power of 12ft lbs are rabbits, grey squirrels, brown rats, magpies, crows, rooks, jackdaws, jays, wood pigeons, feral pigeons and collared doves. There are some others you can add to the list, such as the exotic ring-necked parakeet and monk parakeet, would you believe, which in localised areas of the country have bred in the wild to the point when they're found in troublesome numbers due to pet birds being illegally released by disinterested owners or escapees from aviaries. You can even try your hand at certain waterfowl such as moorhens and coots – these two in particular being genres of duck, so only when in season.

The quarry species that most airgun hunters encounter will be fully dealt with in due course, but the main aim here is to illustrate and introduce when and why the precision accuracy of a good-quality air rifle is more suitable than the out-and-out stopping power produced by a live-round sporting rifle. First, we need to take into consideration that the kill-zone of smaller vermin deemed appropriate for control with an air rifle is relatively small. In many cases the hunter needs to place a pellet into a target area not much larger than a 10p piece and on some occasions, such as when taking a head-shot, this kill-zone is even smaller. An obvious scenario where an air rifle is the optimum tool and preferable to a more powerful firearm, is when shooting inside buildings such as barns, or around outbuildings. A more high-powered rifle could cause major damage and the possibility of dangerous ricochets.

The airgun hunter using a 12ft lb air rifle can often operate safely and legally in locations where a live-round firearm user can't. Many areas of open land just aren't deemed suitable by the police for a rimfire rifle to be used, but that doesn't mean that the area will be devoid of vermin.

Often it's quite the opposite, as these places become havens for all manner of unwanted pests. Another example is in woodland, when squirrels or corvids such as magpies and jackdaws are the quarry. In many such situations you can't use a shotgun due to the damage that many shot pellets can do to the trees. A rimfire is totally out of the question due to the high power of the bullet, but a pellet fired from a 12ft lb air rifle has more than enough stopping power for tree rats and egg-thieving corvids. Some of the most challenging shots I've taken have been against these species. To be able to 'thread' a pellet through a maze of branches and twigs to hit a kill-zone on quarry such as these takes precision – precision accuracy from the hunter and precision performance from the air rifle, and there's the rub! We're already at the stage where you'll have realised that not only must the equipment you're using be up to the job, but also your personal level of shooting skills. These include accuracy with the rifle, and fieldcraft in your approach to the quarry. Accuracy comes with practice – an absolutely essential part of the airgun hunter's learning curve.

If your rifle and marksmanship aren't up to the job, then you simply won't be successful. Fortunately, modern air rifle engineering technology has come along in leaps and bounds in very recent years. Indeed, a newcomer to the sport can almost be spoilt by the fact that today's best air rifles, particular the pre-charged pneumatic (PCP) types, almost shoot themselves, needing only a helping hand or two to place the pellet exactly where it needs to go – the all important kill-zone. The air rifle is a precision tool that can do what many other sporting guns are just incapable of doing, which is to afford the shooter pinpoint accuracy without the 'overkill' factor that can be produced when using live-round sporting rifles. It's worth bearing in mind that quarry such as rabbits – a species obviously suited to the hunter using a rimfire or an air rifle – can often be encountered well within 50yds. Within that range only 4ft lbs of energy at the target is necessary to dispatch it cleanly, so long as the pellet strikes with precision within the kill-zone. Precise, low-power pellet placement is often better than greater power with poorer accuracy, but I must emphasise that using an air pistol for hunting is a definite no-no. The legal power limit for a non-licensable air pistol in the UK is 6ft lbs at the muzzle, and at typical quarry ranges that is simply not powerful

enough. The only exception is at extremely close quarters, when you need to dispatch small vermin in a live-catch trap or administer a coup de grace.

Choosing an air rifle from the vast selection of those available and suitable for hunting can be a daunting prospect. Assuming you're already familiar with shooting air rifles, then beginning hunting can be a simple matter of transition, but even before choosing a gun we've not only got to decide upon the calibre – a topic which will be dealt with in the Ammo section and individually in Quarry Files, but the power source the air rifle uses to propel the pellet. Essentially, you have a choice of three types – either a traditional spring-powered rifle, one that's gas-ram-powered, or a pre-charged pneumatic-powered (PCP) rifle. Whichever you choose, as you're going to be hunting you will need a rifle that's capable of a muzzle energy of at least 11ft lbs, i.e. as close as possible to, but still comfortably within, the 12ft lb legal limit. Anything more powerful requires a firearm certificate.



Choosing an air rifle from the vast selection available and one that is suitable for hunting, can be a very daunting prospect

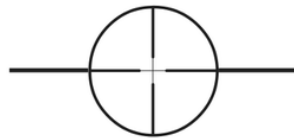
As regards choosing an air rifle I'm deliberately not naming too many specific models, with the exception of certain landmark rifles and those

that I feel are particularly suitable for hunters. Some models have already been consigned to the history books, and a few may not still be available by the time you come to read this, but I do mention certain air rifles because of the classic status they've achieved, which deserves credit and recognition.

I also mention established airgun manufacturers who have rifles in their stables that are well worth considering, but with so many different models being launched each year, I don't want what I've written to be out of date before it's even published. So, when I refer to particular air rifle features, you'll be able to look for those in the marketplace at any time, and choose a rifle from among those in production, which suits your needs and your budget. I've taken the same approach when I mention optics manufacturers and suppliers of any shooting-related accessories and products.

Here, I must mention someone without whom no book concerning hunting with an air rifle would be complete, by giving credit to the late John Darling. His book, simply yet aptly titled 'Air Rifle Hunting', is the seminal work on the subject, and one that can certainly help pave the way for our sport to be more widely accepted. It's packed with solid information that is as relevant today as it was when it was first published in the late 80s, and it's now a book of classic status that has stood the test of time. The air rifle hunter with a thirst for knowledge would be well advised to read it at their earliest opportunity.

Now – time to look at air rifles, their power sources and workings, the pros and cons of each type, and the necessary skills of the hunter who uses them successfully. Read on – and welcome to the wonderful world of airgun hunting!





A basic but good quality 'springer' is easily capable of kill-zone accuracy out to 30 yds

1

Power Sources, Actions and Options

You can't see it, but boy can your quarry feel it. Of course, I'm referring to the 'ghost in the machine', the unseen, untouchable force that sends the pellet towards the target - air!

That's all it is, the air we breathe, albeit compressed to a pressure level that can project a small piece of lead effectively out towards a given target. How it's compressed is a matter of mechanics and the way we produce that to use in airguns is by compressing a metal spring in a cylinder to power a piston, or pre-charging an air reservoir that in turn lets out a measured (regulated) amount of compressed air for each and every shot. There's also the gas-ram system, first developed by Theoben Engineering but now used by many other manufacturers in their own variously named systems. This is another mechanical power source, but using a compressed air/gas filled strut instead of a spring/piston. All of these 'systems' will be explained in detail as we come to them.

As it currently stands by law, the muzzle energy that a 'legal limit' air rifle can produce is 12ft lbs, which means that you don't need a licence to own it. However, by obtaining a Firearms Certificate (FAC) you can own an 'on ticket' air rifle with muzzle energy above 12ft lbs and way up to 30, 60, 80, 100ft lbs or even more. There are now FAC-rated air rifles capable of producing incredibly high power levels, some in calibres equalling the size of centrefire rounds!

However, the majority of UK airgun hunters are content – and rightly so – with 'off ticket' air rifles that are capable of effectively and humanely dispatching quarry right out to 50–60yds, providing you've honed the shooting skills needed to achieve this. Generally, the maximum

range most 12ft lb airgun hunters are comfortable with to engage their targets is widely accepted to be within 30–40yds depending on weather conditions. With dedicated practice you could eventually advance to a level of accuracy that allows you to extend that maximum distance, but only when conditions are favourable.

A few companies now produce single- and multi-shot rifles that use Carbon Dioxide (CO₂) in the form of pre-filled capsules or cylinders as a power source, and a few of these rifles are suitable for medium-range hunting and pest control – such as ratting and feral pigeon clearance. Using CO₂ as a propellant results in the rifle having recoilless attributes similar to pre-charged pneumatic- (PCP) powered air rifles but without the need for a divers' cumbersome compressed air cylinder or a manually operated stirrup-type pump.

Spring-Powered

Now to the most traditional and arguably the most popular of power sources – the spring and piston. Basic spring air rifle design hasn't really changed much in well over a century, although there have been huge advances in materials, technology and production methods. To get power from the spring, it first needs to have power put into it by manual compression – and that means you. There are three types of mechanisms (or 'actions', as they're known), for compressing the rifle mainspring. The most common is where the barrel itself 'breaks' at the breech (and is therefore called a break-barrel) and is used as a lever to compress the spring, or with fixed-barrel rifles a separate pivoting lever is used, either under the barrel (under-lever) or on the side of the rifle (side-lever).

By far the most popular action for a spring-powered air rifle, or 'springer' as it's often termed, is the break-barrel. As manufacturing processes are now much more advanced, a high-quality break-barrel's accuracy potential is equal to virtually any comparable fixed-barrel rifle operated by under-lever or side-lever action. Over time and prolonged use, a spring may eventually wear or even break, but most modern springs will take years of hard use before this happens – if it ever does. Even so, a mainspring is not expensive or difficult to have replaced.

Irrespective of action type, the mainspring sits inside the piston, which is dragged back when the rifle is cocked and is automatically locked back in place by the trigger sear.



The break-barrel – still the most popular action for a spring-powered air rifle

Trigger Talk

The following applies to triggers on all air rifles, regardless of power source, unless stated. Any trigger mechanism in a spring gun is a high-stress component. Firstly the sear or sears are internal trigger components that fit together when engaged, to hold back the rifle piston (or hammer if a pneumatic rifle). The term 'creep' refers to

the drag sometimes felt when pulling the trigger. To be strictly precise, 'creep' is really associated with 'single-stage' trigger pulls, where the entire engagement of the sear, is released by a single continuous pull to release full sear engagement. A 'two-stage' trigger unit has two movements before firing. The first stage takes up the pressure from the blade to the first engagement of the unit, whilst the 'second' stage 'trips' the sear and the rifle fires. A 'single-stage' trigger has only one movement to fire the gun. Virtually all good-quality hunting rifles are now graced with two-stage units with plenty of facility for adjustment to suit the shooter's requirement.

When the trigger on a spring-piston-powered rifle is released, the spring uncoils, driving the piston forward in the compression cylinder, which forces accumulated air in the cylinder to be compressed and forced through a transfer port, which in turn propels the pellet along the barrel. The size and strength of the spring, together with the air volume in the compression cylinder or chamber, are the major contributing factors to the power of the rifle. The main drawback of the spring-powered airgun is recoil and piston bounce on firing, created by the piston rebounding as it comes to the end of its travel. This can manifest itself as muzzle flip or mechanical recoil, both of which – if not compensated by the shooter – can cause pellets to go off target.

A muzzle weight can be fitted and to a certain extent the addition of a silencer also helps, but more importantly, accurate shooting with a spring-powered air rifle needs the shooter to adhere to a few basic set rules of good gun handling. Shooting stances and styles will be outlined as we come to the relevant section.

Although the spring-piston-powered air rifle has its downsides it certainly has its plus points. Firstly, it's completely self-contained and therefore a highly portable power source. As the rifle is cocked for each and every shot, this removes the possibility that the rifle will fail to operate due to 'running out of air' as could happen with a pre-charged pneumatic. However, a modern day, basic and good-quality spring-powered rifle is still easily capable of kill-zone accuracy out to 30yds, and dealing with most scenarios the airgun hunter will encounter.

Incidentally, it's worth mentioning here that a side effect of recoil can be scope damage. The recoil from a spring-powered rifle can be more

vicious in jarring the scope than a sporting firearm firing powder-loaded cartridges. Some early models of air rifle became notorious as reticle (or 'reticule') breakers. Whatever the term, these are the crosshairs in a scope and they would actually break and be seen to split into two, or actually fall down into the eye bell. Of course, a lot of this is now history, not only due to the fact that reticles are now more commonly etched onto glass rather than actually being fine, hair-size metal wires; but the firing cycle of virtually all modern day production springers is also far less harsh than in the early days of the sport. More likely, the annoying trait known as 'scope creep' can occur. This involves the scope moving slightly in its rings or on its mounts each time the rifle is fired. But scope creep can easily be overcome by using good-quality scope mounts, a special dampened mount such as the DampaMount™ designed and manufactured by British scope mount manufacturers Sportsmatch UK, or by using scope mounts with an arrestor peg or arrestor block. As mentioned much earlier, springers aren't the 'clangy' unruly beasts they once were, and scope creep should be - and to a large extent is - a thing of the past, assuming that the scope is correctly fitted in quality scope mounts.



Virtually all hunting air rifles have two-stage adjustable trigger units and manual safety catches

The other factor of a spring-powered air rifle that needs to be considered is internal spring noise on firing. This is usually caused by the spring uncoiling, and can usually be remedied by a spring guide. Most established airgun manufacturers combat internal mechanical noise in their own ways. Special synthetic bearings and spring guides have all been used, but it was the British manufacturers Webley & Scott (R.I.P) who were the first to develop what they termed 'Silent Spring Technology' to help combat the problem. Basically, a sleeve for the mainspring was fitted inside the compression cylinder, and various bushes and synthetic parts were fitted to the piston head. The result is that

the metal-to-metal contact is kept to a minimum, and all areas are lubricated to ensure a smooth firing cycle. Indeed, this is one of the reasons why, if you're serious about hunting and still want to use a springer, I'd have no hesitation in advising you to have your rifle specially tuned.

Tuning and Recoil Reducing Designs

Mechanical reactions resulting from the spring piston action can be reduced further by having the rifle tuned by a specialist gunsmith – this in effect is the hand finishing of the rifle's internal components to get a smooth and consistent action. Amongst other things, this entails piston heads being correctly sized, the mainspring being replaced with a special one, spring guides being fitted (as mentioned previously) – that is if they aren't already in the rifle - and all internals being polished to reduce friction, with all metal-to-metal parts being suitably lubricated upon reassembly.

At one time, by far the most famous custom house for tuning was Venom Arms, a partnership of airgun experts Ivan Hancox and Dave Pope. This company was responsible for inventing the famous Lazaglide tune – most often requested for the classic German-manufactured Weihrauch HW80 barrel power and its cousin the HW77.

Although Venom Arms has long gone, their ideas live on in V-Mach Custom Rifles Limited, a specialist tuning company owned and run by the highly skilled Steve Pope (Dave Pope's son).

Another highly reputable gunsmith is Tony Wall, of Sandwell Field Sports in the West Midlands. Tony shares some of his knowledge later, in the chapter on Gun Maintenance. As a 'springer fan' himself, it's no surprise that his words lean heavily towards how best to keep the traditional spring-powered air rifle working as it should.

Reduced-Recoil Springers

An ingenious gun designer, John Whiscombe, actually designed a springer that uses opposing springs and pistons so that when one travels forwards, the other travels back to cancel out recoil. The Whiscombe

Rifle, first seen in the mid-1980s is probably the lowest recoiling springer ever produced. Similarly, the Ken Turner-designed Air Arms TX200SR ('SR' denoting Semi Recoilless) under-lever cocking rifle, worked on what was termed a 'sliding sledge' system; when fired, the action slid backwards in the stock, countering and reducing recoil. It was a very effective design, and I hunted with one very successfully for many years. Similarly, RWS Diana has the Model 54 Airking and the Model 56 Target Hunter side-lever action, spring-powered air rifles using a 'sliding action' to reduce recoil. I've owned both and they are very accurate, if a bit heavy. Incidentally, while on the subject of 'springers' it's worth noting that if you require open sights (or 'irons' as they're often termed) then you'll undoubtedly be buying a spring-powered air rifle. Open sights are extremely useful, especially if most of your shooting involves relatively close-range work such as indoor shooting, culling quarry such as rats and feral pigeons.

The Gas-Ram System

A straight alternative to the spring-piston system is the gas-ram-powered air rifle. Gas-ram rifles use the same cocking methods (break-barrel or under-lever) and direct barrel loading as spring-piston rifles.

Theoben Engineering were the first to perfect the gas-ram for air rifle use and their name was once synonymous with the system. Unfortunately, although once one of the UK's leading manufacturers of PCPs and the original gas-ram-powered air rifle, at the time of writing they had just announced that they'd ceased trading in the UK.

The situation at present is US-based 'Rapid Air Weapons LLC' (a precision engineering company and prior to the demise of Theoben Ltd already in common ownership), who stated that they would 'carry on with the manufacture of the company's PCP operation'. Already a few select retail outlets in the UK stock some of the main parts for original UK manufactured Rapid PCPs – these include magazines, buddy bottles etc. However, no mention has been made of Theoben's gas-ram rifles, but a lot of other companies including Weihrauch, BSA, Crosman, Gamo and Hatsan have their own gas-ram systems for powering air rifles.

The gas-ram concept gives the shooter the benefit of a faster lock time (i.e. the time it takes for the pellet to leave the muzzle after the trigger is ‘squeezed’), there is less maintenance and the gun can be loaded with the gas-ram compressed for long periods with no loss of power.

When Theoben decided to throw away the spring and progressively develop the gas-ram system, they revolutionised manually-operated air rifle technology. Over the years they refined the system and used it in an under-lever as well as break-barrel action rifles. As the name implies, a gas-ram uses gas pressure to drive the piston. Specifically, this is like the shock absorber of a car, with compressed nitrogen or argon gas contained in a sealed telescoping strut. As the rifle is cocked the strut telescopes inwards, further compressing the gas it contains. When the trigger is pulled, the gas strut telescopes outwards as the gas re-expands. This means that it acts like a spring-loaded piston – pushing air before it and into the transfer port to propel the pellet.

The gas ram piston is faster than a spring-piston system generating the same power, so lock time is reduced but ‘bounce back’ recoil may increase. Theoben dealt with this by fitting a secondary free floating inertia piston (basically a ring), which slides independently behind the main gas-ram. As the name suggests, this ring is dragged by inertia slightly behind the piston head or gas-ram piston head; when the gas-ram reaches the end of its stroke and starts to ‘rebound’ from the wall of compressed air it has created after firing, the floating inertia piston behind it catches up to meet it a split second later in the firing cycle, reducing piston bounce and radically reducing recoil.

On most Theoben gas-ram rifles the letters HE were often stamped on the top of the breech. This stands for High Efficiency, and a very fitting term it is too. However, the mechanics of the system don’t end there, with just using gas and secondary pistons, because the company later developed a special piston crown to complement the design. Known as the Zephyr Piston Crown, it has air channels cut into it in a ‘fan’ shape funnelling air towards the transfer port so most of the air can escape and isn’t trapped where it can cause unwanted piston bounce.

While the level of accuracy that can be achieved with a gas-ram rifle is impressive, there certainly is a knack to firing one, just as there is for a spring-powered rifle. Granted, the gas-ram doesn’t have the recoil of a

springer, but it does have a definite movement on firing. This could never be termed unruly or unmanageable, but it is a side effect of the power source that needs to be taken into consideration when shooting. Now that the fundamentals of a 'gas filled' strut system have been proven, many other gun manufacturers are making rifles fitted with their own version of the gas-ram power source.

We now come to the most talked-about power source of recent times, the pre-charged pneumatic system.

The Pre-charged Pneumatic (or PCP)

Besides electronically operated air rifles, of which you'll read more later, the technology of the pre-charged pneumatic dates back to the eighteenth century when some rifles used a hollow iron rifle butt or in an iron ball as a vessel for storing compressed air. Apparently this is one of the reasons why acquiring and enforcing exclusive patents on modern PCP technology is so difficult. The major benefit of any PCP (or any other pneumatic or CO₂-powered rifle for that matter) is that it is easier to achieve a high level of accuracy because there is virtually no mechanical movement on firing and therefore the rifle has no recoil. Another bonus of the PCP rifle is that it can be rested on a bipod, fencepost or similar static object to steady your aim. Try that with a spring piston or a gas-ram and your shots could fly wide and inaccurately – PCPs are much more forgiving.

Pre-charged pneumatic air rifles are so called because you need to pre-charge (in other words 'fill') them with compressed air from an outside source – usually a larger compressed air storage vessel, such as a diver's air bottle or alternatively you can manually compress air into the rifle using an external pump. This reliance on an outside air source is what puts some shooters off PCP rifles, but it's far easier now to own and run a PCP than ever before. A small charging unit consisting of a compressed air bottle, pressure gauge and hose doesn't cost the earth, and will only need refilling depending on the amount of shooting you actually do. Divers' bottles come in various sizes, usually from 2 litres to 12 litres,

which can be filled with compressed air (from a diving shop, gun shop, or industrial gas supplier) when needed.

For safety reasons, compressed air does require the shooter to adhere to a few basic rules:

- Always ensure that the connector and fill point are clean, dry and free from grit or dirt.
- Only use diver's quality compressed air, and never under any circumstances use anything else.
- Some older models of PCPs have 'fiddly' or poorly positioned fill points. Take note of this – avoid kinking or twisting the charging hose more than necessary.
- Where circumstances dictate, either have your rifle held stable in a rifle cradle, resting on a deployed bipod (if fitted) or laid down on a padded gunbag while filling.

Once satisfied the hose is correctly connected to the rifle open the valve slowly to allow the air to flow smoothly and at a uniform rate into the rifle's air reservoir. If you hear air escaping (a high pitched noise) or anything untoward, very quickly assess where the noise is coming from, stop the filling procedure immediately (close the supply valve), then tighten the leaking connection and then restart the filling process. Keep an eye on the pressure gauge and when the desired pressure is reached, immediately close the air supply valve on the bottle fully. Bleed the air out of the hose using the bleed screw or 'dump' valve, and then carefully remove the filling adaptor from the rifle. Where applicable, always refit the dust cover cap to the air rifle's filling point to keep the inlet valve protected from dirt and grime.

Note: An air rifle's user manual will clearly state a maximum fill pressure (sometimes also found on the rifle itself) but there's also a recommended fill pressure. You should never try to exceed the maximum fill pressure stated – it's potentially dangerous and will reduce power rather than increase it. The recommended fill pressure is often given as an optimum charge for a flatter power curve and also to give the maximum number of consistent full-power shots per fill.

It's worth noting that quite a few PCPs run that little bit sweeter on a slightly lower fill pressure than the one recommended by the

manufacturer. You do get a slightly fewer shots, but usually you gain the benefit of better shot-to-shot consistency and a smoother, flatter power curve throughout the charge.

PCPs can generally be split into two categories – unregulated and regulated. This refers to the fact that some rifles use a knock-open valve to dispense air to the pellet on firing, whilst others have an internal air regulator. Simply put, the knock open valve literally ‘knocks open’ when the trigger is pulled, allowing a certain amount of air to pass through the transfer valve to act on the pellet, then closes. Alternatively, a PCP air rifle fitted with an air regulator, meters a measured amount of air to the pellet on firing. The regulated air rifle gives a very consistent level of performance and more shots per fill of air. Regulated rifles can be more costly to buy, and even so, some shooters argue that some unregulated rifles are so well developed and designed that their inherent accuracy potential is usually superior to the shooter’s ability.



Selection of magazine systems – virtually all multi-shot PCP air rifles use a removable rotary-feed magazine

When it comes to the PCP as a hunting tool, in many cases it's capable of being fitted with a magazine so you don't need to load a pellet manually for each and every shot. There are many single-shot PCP air rifles on the market and some of these can be 'retro' fitted with magazine

systems from the gun's manufacturer or specialist custom houses. With a multi-shot PCP the ease of the cocking and cycling operation means that at each 'throw of a bolt' another pellet can be ready to go, maximising the hunter's chances should the first shot miss. The cocking mechanism is usually a traditional rear or side-mounted ball ended cocking bolt or an articulated cocking lever sited on the side of the rifle's action – but you may come across others, such as rifles that use an under-lever incorporated into the trigger guard (similar to a Western-style Winchester rifle).

Now to the disadvantages; obviously, the main one is the need for charging gear or access to a gun shop that provides a refill service. You also need to keep a check on the rifle so you don't run out of air while out shooting. Most quality PCP air rifles now have an on-board air pressure gauge. Whilst I personally feel these are quite handy, they should only be used as a guide. Before any hunting trip, top up the rifle to its required fill pressure so you're always running your rifle at its optimum level of performance.



The Daystate Airwolf Tactical is one of the new breed of electronically operated PCP air rifles

Pneumania – Development and Acceptance of the PCP

Few would argue that it's largely due to Daystate Ltd that modern PCP rifles began to become popular again. Founded in 1978 by Don Lowndes, Jim Phillips, Ken Gibbon and Mike Seddon, Daystate first used a rifle with a pre-charged air reservoir to fire tranquilliser darts into animals for veterinary purposes. As the company's reputation grew they received various enquiries from pest control operatives looking for a more efficient tool for vermin control than was generally available at the time. It soon became obvious there was a market for producing a pre-charged air rifle that would fire the more traditional lead pellet projectile. This resulted in the company producing the original Daystate Huntsman, a landmark rifle which sowed the seeds for the PCP power source to become more widely accepted.

Daystate have now totally revolutionised the PCP market place with their ongoing R&D of PCP air rifles to the point where they not only produce some of the most highly desirable mechanically operated PCPs, but also fully electronically operated air rifles that use MAP Compensated Technology (MCT) and the Harper Patented electronic trigger as seen on the top level, hunter-designed AirWolf or their FT supergun.

Those terms previously mentioned aren't 'PR codswallop' but equate to how the rifle works using such hi-technology. In brief, MCT is the heart and soul of the rifle using a series of complex algorithms pre-programmed into the rifle's on-board software. The AirWolf's computerised MCT system precisely regulates its power output, eliminating the usual PCP 'power curve' discussed previously thus improving shot-to-shot consistency and returning an outstanding number of usable shots per fill. In fact, simply put, it's virtually 'driven' by an internal mini-computer that monitors every microsecond of its firing cycle making the Daystate AirWolf MCT the most technologically advanced sporting air rifle at the time of writing; and that's considering that the non-MCT version of the AirWolf, in my opinion (and of many others), is already technologically advanced enough for a hunter's needs, if not more so. When the first versions became available many hunters were sceptical (including me) that the rifles would withstand the elements of the hunting environs. However, they've more than proved they can 'hack it' in the field. Even though largely internally operated by electronic processors, capacitors and even electronic air regulators, such is the design and build quality of these PCPs that no matter what the weather, these systems still operate as they are manufactured to.

These rifles have turned the whole market place on its head due to how airgunners would now buy air rifles – a distinct change as many prefer the 'electronic' for their specific attributes (one being a totally 'dead' firing cycle). The DFC combines to afford unbelievable accuracy, and although these electronic rifles haven't taken over from the traditional PCPs, they're an option and one that definitely can't be ignored.

Their latest showpiece (at the time of writing) is the mechanically operated Daystate Wolverine 303 – yes we are talking a full bore airgun

in .303” (7.62mm calibre) that puts out an FAC-rated 100ft lbs of power! Much more on this and many more powerful air rifles in the chapter devoted to FAC-rated air weapons. Throughout the 1980s and 1990s there were (and still are) quite a few independent UK designers that helped popularise the PCP power source, such as the ingenious John Bowkett, who introduced one of the first really affordable PCPs in the Titan Manitou. More recently John has created award-winning rifles for BSA, including their present flagship PCP; the R-10 Mk2.

Another legendary airgun expert was Gerald Cardew, who along with John Ford of the scope mount manufacturing company Sportsmatch, designed and produced what was to become the ‘Rolls Royce’ of airguns, the Sportsmatch GC2 – with its unique regulating system. To this day many believe that this air rifle took the humble airgun into a whole new era in construction, quality and accuracy. Even in the early 1980s the gun cost £1,000!

Nor can we dismiss the genius of Mick Dawes (sadly no longer with us), working in the West Midlands, who made the Brocock MDS. Although this is a rifle used purely for Field Target work, I mention it because it was Mick Dawes who, at the same time as a man named Barry McGraw (a nuclear physicist no less), was at the forefront of regulator design. For their work all manufacturers should be eternally grateful. Other names such as Joe Wilkins and his son Steve of Ripley Rifles fame, Ben Taylor and Dave Theobald of Theoben, Dave Welham of Airmasters 88, Steve Harper and Ken Turner... all had a hand in some very innovative designs, many of which are still being produced. I could go on naming names, but as this isn’t a detailed in-depth look at the history of the PCP I’ll leave the thread here, apart from saying that many of those mentioned above have also worked on and helped to develop top quality, spring-powered rifles too.

Rapid Fire

It was in 1990 that the Theoben Rapid 7 appeared – the first modern reliable and practical multi-shot air rifle. This 7-shot rotary magazine, bolt-action PCP rifle slowly but surely heralded the start of a trend that was to change the face of airgun hunting. Indeed for quite a while the

Theoben Rapid 7 multi-shot was the undisputed champion for hunters looking for a quick back-up shot.

The 'Rapid' range of multi-shots may be named the '7' but some later models can now run a 7, 12, or 17-shot magazine depending on the individual rifle's calibre. The original Rapid 7 deserves great credit, for single-handedly establishing the popularity of multi-shot rifles for hunting. Since the mid-1990s, many other companies have turned their attention to creating their own magazine-fed rifles resulting in new repeating rifles not only becoming available but also affordable.



The Theoben Rapid 7 – this rifle single-handedly began the popularity of multi-shot PCP air rifles in hunting

Multiple Choice

All multi-shot rifles share a common factor – i.e. pellets are held in a magazine before the action cycles them into the barrel for individual firing. The benefits of a multi-shot are obvious. No need to place a pellet

onto a loading channel or in a barrel for each and every shot, because another shot is ready in an instant at the throw of the bolt. If you miss, this means you can often get a second chance before the quarry does a bunk. Some quick back-up rifles are in fact ‘double-shot’ models, and therefore not strictly what can be classed as multi-shots, as they only have a two-shot capacity. The first production rifle of this type was the Webley Raider 2 and though not as popular as a true multi-shot, it did at the time fill a market need. Strangely enough, one of the very latest ‘supergun’ PCP’s – the Milbro Metisse – uses an ‘instant second shot’ loading shuttle with just a two pellet capacity.

It’s worth noting that although we’re continuously reminded that hunting is a one-shot deal, and in part I’d tend to agree with that, in reality it is never that simple. In fact, I feel the majority of hunters who choose a PCP will choose a multi-shot option straight off. But how many shots do you want? Are two shots enough, or do you want as many back-up shots as you can get?

Whichever you choose, you’ll immediately appreciate the benefits of that quick back-up shot, and many hunters agree they find it hard to go back to a one-shot rifle once they’ve experienced the ease of ‘next shot’ access – so you have been warned!

By far the most popular are the multi-shots of higher capacity. The rotary magazines in the majority of rifles are either spring loaded to rotate, or are indexed around mechanically by the action once the magazine has been inserted into the rifle’s action block and shots are fired.

The Rotary Club

Whilst most multi-shot actions are either a bolt or lever system, what differs is the type of magazine feed employed. There are a few fixed magazines and even fewer removable straight-line or linear feed mechanisms, but by far the most popular systems use a removable rotary-feed magazine. This can either be the classic 8-shot drum magazine as first seen in FX rifles, or the 14-shot ‘big wheel’ as used by the now very highly regarded Weihrauch HW100 – these are just two examples.

However, as this design of magazine is open to the elements, some manufacturers prefer the enclosed types, though the drum or wheel types are easier to clean and load (at night).

Enclosed Perspex-fronted designs are used by Theoben and Air Arms multi-shots, and FX Rifles now use a version, as does the 10-shot BSA R-10 Mk2. There's also the very efficient and of course much developed Daystate multi-shot magazine.

Some very well-established manufacturers have models in their range that use the 'open' Axelsson 8-shot magazine. It's quite a simple design, being little more than a removable circular drum-shaped magazine that is loaded with pellets and clicked into the action, where it is held in place by a retaining pin. To load for a shot you simply cycle the action with a side- or rear-mounted cocking bolt for each shot until the magazine is empty, then remove the magazine, refill it or exchange it for a spare, pre-filled one, and you're good to go for another eight shots. It is a beautifully simple unit, and pretty well foolproof so long as it's kept clean and free from obstructions or fouling.

PCPs for All!

The inherent advantages of a recoilless, consistent and accurate system were primarily recognised by Field Target competition shooters, whilst multi-shot options and lightweight carbines have latterly made PCP air rifles more popular with hunters. The main disadvantage of PCPs – the fact that they had a fixed air reservoir which had to be charged up fairly frequently from a compressed air power source, usually a diver's bottle – has more or less been overcome. Rifles fitted with regulators (air meters) can easily give a full day's shooting – from 100 to 200 shots – on just one charge of air, while hunting rifles have benefited from the introduction of small to large, removable/replaceable or fixed 'on-the-gun' buddy-bottle air reservoirs, some of which can quickly be replaced in the field for a full one, with the empty one to be refilled later.

The availability of manually-operated external pumps, capable of charging rifles without the need for a diving bottle, has also helped popularise PCPs in a few areas that had limited commercial compressed

air sources. Take note; an external pump can be hard work to use, and not all PCPs can be charged with them, so check before you buy one.

What of the Future?

FX Sweden show some very clever changes to the Verminator MkII 'take-down' PCP air rifle and talk of new larger calibres for various rifles they currently produce. As I write, the company have just launched The FAC-power-rated FX Boss. With a multi-shot action based on the FX Royale chassis this joins the elite of the FAC-power-rated offerings. Target cards showing sub ½" c-to-c groups have been witnessed at 100yds making this for real-time hunting what is often now termed 'a true 1½" group gun at 100yds'.

If that wasn't impressive enough, the much talked about Daystate Wolverine .303 represents yet another change in design and illustrates the now unique calibres available in FAC-rated air rifles. Much more on these multi-shot monsters and other hi-power superguns in the chapter on FAC, but I must add, these new 'exotic' calibres obviously need new ammo and very well designed and manufactured at that. Most gun companies have been working with pellet supremos JSB. Brace yourself for the ammo already manufactured for these rifles. The Wolverine uses a 50.15gr pellet, while the FX .30 calibre Boss uses a 'slug' tipping the scales at pretty much the same. FX have even designed a .35 calibre pellet and as you'll read later, hunting with FAC-power air rifles has now become one of the most talked of and very exciting branches of our sport in modern times.

Manual Pumped Pneumatics

We couldn't talk about PCPs without mentioning another type of pneumatic – the manually pumped pneumatic with its own compression lever. This includes the Holy Grail for some airgun enthusiasts; the single-stroke pneumatic. This is a pneumatic rifle that doesn't need a diving bottle or any other charging device, except the shooter himself, and can generate enough power for a single shot with one stroke of the integral pump handle on the rifle. John Bowkett invented a few such

rifles including the Titan Mohawk and the JB1, production rifles that used a side-lever to pump in enough compressed air manually to produce around 10-11ft lbs of power in a single stroke. Other airgun pioneers also made working ‘single-stroke pneumatics’ including Richard Spenser designer of the side-lever Air Logic Genesis, a rifle capable of nearly 12ft lbs. Similarly, Graham Bluck invented the Dragon rifle, a single-stroke side-lever, which was marketed by Parker Hale. The common denominator among all these rifles is that although hailed in their time, for various reasons they are not around now, which suggests that at least commercially they were not successful. It should be noted that there have also been multi-stroke, manually-pumped pneumatics. These have been with us a long time, the most famous being the American brands of Crosman and Sheridan, and the Japanese, Sharp Innova – and now the new Webley Rebel. This type of pneumatic is relatively inexpensive and they work, but they take a lot of time to load and are tiresome to pump up to working pressure (sometimes up to 8 pump strokes for 12ft lbs). However, we now have the FX Independence, a hybrid PCP with both an air filling valve and a built-in manual pump. This Swedish manufactured multi-shot can be filled up from a diver’s bottle then manually topped up in the field by the shooter using the side-lever. So to keep running on full, it’s approximately 4-5 pumps per shot.

Take it Down

We now come to what are for obvious reasons known as ‘take-down’ PCP rifles. The original production take down was the Colchester Gamekeeper launched over 20-yrs ago and now highly sought after by collectors of airgun memorabilia. Most new models are based on already successful PCP rifles that their makers offer in full stock option. One of the most popular is the Air Arms S410 TDR (Take Down Rifle.)

Modern day TDRs usually break-down into the main butt section of stock, mainframe (action) and silencer. Read my full views on these unique and interesting rifles in Chapter 3.

The Digital Age – and Tactical Too!

From here on in, 'digital' is often the keyword to a lot of developments, be they rifles, scopes and even accessories, such as lamping kit. Furthermore, the use of digital technology takes us into a whole new realm when we come to Digital Nightvision Equipment - its operation will be explained as we come to that section. Another new term is 'tactical', obviously taken from the military, at first seen in reference to rifle models with black or camo synthetic stocks, it has now spread throughout many airgun hunting products – tactical scopes, tactical weapons cases, tactical bi-pods – the list does seem endless. With rifles, at first, it was due to the design, not always military. For instance, with the BSA Lightning XL Tactical it was the very well-designed ABS stock that this springer sits in that earned it the rather misleading title.

I must also mention Military Specification (mil-spec), for example 'made from mil-spec aircraft grade aluminium' – a term you see used for certain scopes and silencer bodies. In this case it means the grade and/or tolerances used in manufacture meet with MOD standards. This suggests high-quality components and a good level of construction. Often it does perform more effectively in the field but – to help us shoot better? That's definitely up to the individual.

Budget Priced PCPs

I'm sure many airgunners never envisaged a time when we could class any PCP as a budget rifle. Well, that's certainly not the case now. Granted, they'll always be the more expensive option, but in terms of value for money, most single-shot PCPs offer an incredible amount of performance for your investment. Some single-shot rifles can even be upgraded to multi-shot at a later date using a 'retrofit' multi-shot kit from the manufacturer or a customising house. One of the best is the Air Arms '10-shot (MS) kit' manufactured for their S200 PCP rifle. This self-indexing, add-on unit works the same as a multi-shot rifle. You'd think that there would be little point to this, but it has come about due to the popularity of HFT competition. When the competitors change firing

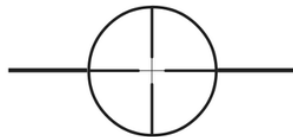
positions, they must do so with a clear breech – much easier with a single shot.

Hardened HFT competitors use a single-shot rifle, but they also like to hunt, this gives them the option to stay with one gun for both shooting disciplines. Many multi-shot rifles (such as Daystates) now have an optional ‘single-shot’ clip that can be used to replace the magazine, so optimising the rifle for both hunting and HFT.

While talking budgets, when buying a PCP you not only have to budget for charging equipment – as mentioned previously - but also a scope and mounts, as very few production PCPs have open sights fitted. Unfortunately there’s no avoiding this, and its here that the price mounts up – no pun intended.

So there we have it; the power sources, the actions, the magazines and the multi-shot options available. Many other new ideas and developments will I’m sure come along, and we’ll be just as impressed again.

Even today, ultimately, what to choose in 12ft lb format is largely an individual matter, but there’s no denying that a multi-shot gives you many benefits and the ability to capitalise on hunting opportunities like never before. But just because you have those extra shots in hand at the throw of a bolt, or side-lever remember that’s never an excuse for letting standards slip, resulting in sloppy or bad shooting practice. Each shot fired should always be taken with steady care and a good aim.



2

Sighting Systems

Scopes, Scope Mounts, Scope Mounting and Alternative Hunting Sights

The vast majority of airgun hunters use telescopic sights – or ‘scopes’ as they’re commonly known – for virtually all hunting applications. So it follows that almost all newcomers to the sport will opt to fit a set of optics to their very first air rifle. In fact, many air rifles, especially PCPs, have no ‘iron sights’ fitted as standard, so in these cases fitting a scope is a necessity.

Within this chapter you should find all the information you will need to choose a scope that best suits your needs as a hunter, but remember, like any consumer market, choosing a scope can be like stepping into a minefield. With such a huge selection available, and every company claiming their products to be better than their competitors’, the decision is bound to be difficult. Even the experienced airgunner could well do with taking a little more time in choosing a new scope, and not just falling for the marketing strategies employed by all manufacturers. Scope mounts must also be considered, but this will be dealt with after we’ve waded through the quagmire of scope choice. First, however, a word or two about open sights.

Any Old Iron?

Open sights, or ‘irons’ as they’re affectionately known, have been the standard and most basic form of sighting system on any gun for as long as they have been made. The basic idea is to align the target with your eye via a sight element towards the rear of the rifle and another near the

end of the barrel. This should line up the bore of the rifle with the target, ensuring that you are sighting as close to the path of the fired projectile as possible – always assuming that the sights are set up correctly in the first place.



See-thru mounts offer the shooter the best of both worlds

The benefits of open sights include quick target acquisition, because you have a very wide field of view, unlike a telescopic sight that tunnels a more limited, narrowly angled field of view onto the target. Also, because irons do not magnify the target, rangefinding isn't confuse' by image-enlarging optics.

There are still many models of air rifle – all spring powered – that are fitted with open sights. These either consist of a post, bead or blade foresight positioned at the front end of the barrel, which is lined up in a U- or V-shaped notch, or a target-style aperture (hole) in the rear sight assembly (the rear sight unit is usually fitted onto the breech end of the barrel, or on the action body itself).

The rear sight will always be adjustable for height (elevation) and usually for windage too (i.e. from side to side), so they can be set for the range (zero distance) you require. Elevation and windage adjustments are catered for either by a set of thumbwheels – often numbered – or the adjusters can simply be a screw and plate.

Setting Your Zero

A matter that needs tackling before we go any further is one that relates to all sighting set-ups and systems, and that is the setting of 'zero' or 'zeroing'. Zero is the term used to refer to a preset point (or distance) to which the sights have been adjusted so the pellet strikes the target to coincide with the centre of the scope's crosshairs – or, in relation to an open sight set-up, the point where eye, sights and 'strike point' on the target all line up. On a red dot sight or the projected 'dot' of a laser sight, zero can also be adjusted.



With open sights, a maximum zero and hunting range of 15yds is more often than not the accepted and recommended norm. This can be extended to 18-20yds if the open sights are good enough and your 'iron-clad' shooting is of a high enough standard. Because this sighting system is so forgiving at close to medium ranges (because pellet trajectory is flattest for the first 20yds or so), you can set your sights at a zero of 12yds and then, providing you do not exceed a range of 20yds, you can literally aim 'bang-on' for all ranges in between – except perhaps for the very tiniest of quarry targets.

Setting your zero with open sights is simple. Line the foreblade into the centre of the notch of the rear sight, place it over the target and have the top of the foresight element (blade, post or bead) level with the top of the rear sight. The object of accurate target shooting is to produce what is known as good groupings. A group or string of shots – usually five – is fired into a paper target and the grouping is determined by the distance measured on the target between the impact points of the most widely separated pellets in the pattern made by the shot string. For example; if this measured distance is 1½ inches between the two furthest pellets, then

you have a 1½-inch group. These measurements are often taken from the outer edge of the pellet holes, because they are easier to measure, and are therefore called ‘edge-to-edge’ measurements; but for competition purposes they should really be taken from the centre of the pellet hole (often termed ‘centre-to-centre’ or ‘c-to-c’). For hunting purposes it doesn’t much matter how you take the measurements, as long as you always stick to the same method – edge-to-edge or c-to-c, and, of course, be consistent in getting good, tight groups.



Open sights are very useful for close range rat and feral pigeon shooting

To find out the maximum distance at which you can hunt humanely, try shooting at paper targets set out at 5-yard intervals. The furthest target on which you can comfortably put a 5-shot group of approximately 1 inch should be your maximum hunting distance – and that applies to all

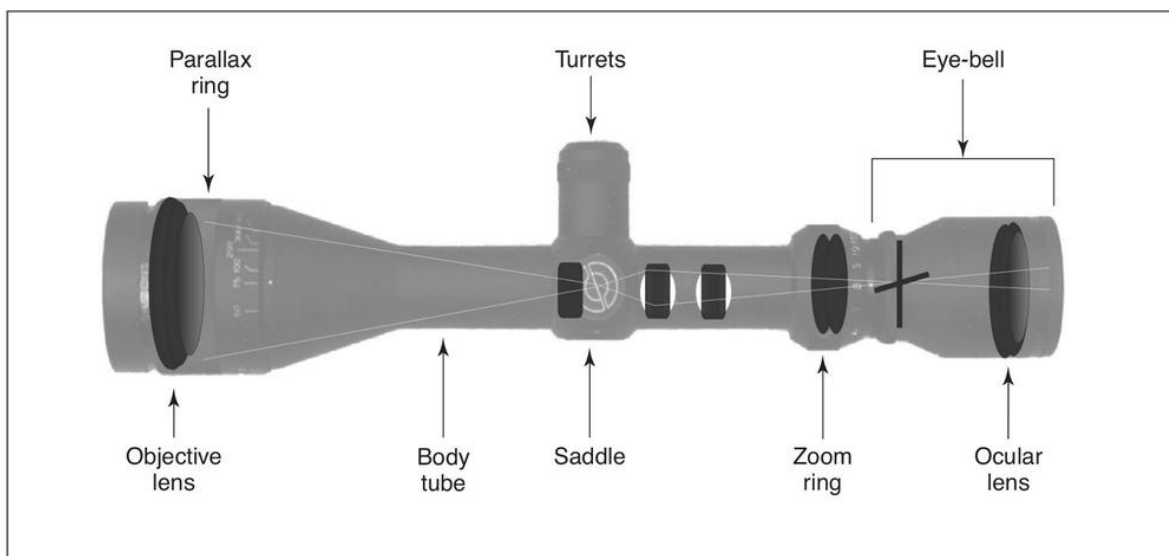
sighting systems. Don't worry about measuring groups, but just draw a series of circles using a 2p piece as a template and aiming point. If your five pellets are within the 2p circle, you're on target.

Incidentally, the main problem you'll encounter with open sights for air rifle hunting is that the sights may actually obscure the target at longer ranges. This is the reason why open-sight shooting should only be seriously considered for close-range work. Whilst this makes open sights ideal for indoor shooting at rats and roosting feral pigeons, this range limitation immediately makes it apparent why a scope is such a necessary addition for the airgun hunter wanting to get the most from his rifle as regards maximum range – which nicely brings us to the subject of scopes.

Choosing a Hunting Scope

Scopes come in all shapes and sizes – small, big, thin, fat, short, long – and that's before you add on the various different features that are offered. But considering there aren't an excessive number of individual component parts used in the construction of a scope, it's still a relatively complex piece of optical equipment.

The Anatomy of a Scope



The main external features of a scope are the eye-bell (or ocular lens housing), the zoom magnification ring (if fitted), the main body or tube, the central ‘saddle’ or turret adjuster housing, the elevation and windage adjuster knobs, the parallax-adjusting ring (if fitted), the objective (frontal) lens bell, and, of course, the lenses and their coatings. It is logical that lens quality is of great importance, as lenses are responsible for gathering light and transmitting the sight image to your eye. Modern scope optics are coated for protection against the elements, and the scratches that can be caused by grit and dirt. They’re often also specially treated with other coatings to achieve better light-gathering, more clarity, and a generally improved optical performance.

General Guidelines For All Scopes

Even relatively inexpensive scopes can be packed with eye-catching features, but the most important factors for any optic are lens quality and coatings. Good-quality lenses and coatings will not give a distorted image, will maintain edge-to-edge clarity, and will be less affected by flare (bright spots). They will also last a lot longer. A quality scope can last a lifetime, while poorer offerings can often be rendered useless in a relatively short period of time. Good glass is expensive, and with scopes you normally get what you pay for.

Apart from lens quality, other important things to look for are smooth operation of rings if fitted (front focusing or parallax ring, and rear focusing and zoom or variable magnification rings), and a positive ‘click-stop’ movement for each increment of adjustment on the elevation and windage turrets. This is so they only shift the reticle an equal and measured distance for each click of the adjuster turret. They also need to hold zero, so they must not move once set.

Overall build quality is also important, especially when fitting to a spring/piston air rifle. The distinctive three-way recoil of a springer has been known to wreck poorly-constructed scopes. The internal mechanisms of today’s quality-brand scopes are built to withstand a lot of use. If your scope sits on a recoilless PCP then it won’t be subjected to the recoil that can be delivered to it by a spring- or gas-ram-powered air rifle.

When choosing a scope, have a clear idea of your own intended uses; check these particular points:

- How often will you be shooting? A hard-used scope will need to be well made and robust.
- Will you be shooting in many different locations at varying distances? If so, you may be better off with an adjustable magnification (zoom) scope.
- Do you do most of your shooting at a fixed range? If so, you may prefer a fixed magnification scope.
- Will your scope be mounted to an expensive pre-charged pneumatic or a springer at the cheaper end of the market? Obviously your scope should be priced to suit.
- Do you intend to do a lot of low-light shooting? You'll need a scope with good light-gathering capabilities, usually with a large objective lens.

All of these questions, and others, will influence your choice, but once you've made up your mind which features you need, buy the best scope and mounts you can afford.

It's worth mentioning that one feature of a scope that many people overlook is its 'closest focus' distance. As the scope is being used on an air rifle, and quarry can often be as close as 12yds or less, you need a scope that will focus down to that distance. Many scopes don't, but with the popularity of airgun shooting, and in particular of airgun hunting, on the increase, most quality scopes for airgun use will focus down to sight-in on targets at fairly close range. If you intend to hunt regularly there are two variables you should consider – light conditions and the furthest range limit at which you expect to engage quarry.

The most popular scope specification for all-round hunting is the 3 – 9 x 40. Scope specifications are always written like this. The first two numbers relate to the range of magnifications the scope is capable of, and in this case it means the scope is a variable power scope from a low of 3 times magnification up to a maximum of 9 times magnification of the object you will be looking at. The last figure relates to the diameter (in millimetres) of the front (objective) lens. The importance of the size of the front lens will be dealt with later when we come to low-light or, as

they're sometimes known, dawn-dusk scopes. As a general rule of thumb, the larger the front (objective) lens the more efficient at gathering light it will be. Therefore, large objective lens scopes are the best choice for low-light conditions. It's worth noting here that the airgun hunter also has the choice of a fixed-magnification scope. At one time the little fixed-magnification 4 x 32 reigned supreme (even for FT) and was very popular. Look around and you'll still find these little scopes for sale, and if a basic model such as this appeals, then – although it's a no-frills optic – it will suffice for a good deal of hunting work. In fact, there are some fine 6 x and 10 x fixed magnification scopes around, but by and large they're manufactured for use on bullet-firing sporting rifles. There are a few that suit air rifles, and some of the finest fixed-magnification scopes also have large 30mm diameter body tubes (one-inch tubes are the norm) and side-wheel parallax adjustment – both very tempting for the newcomer, who might like the looks and macho appeal of these types of sights.

But before we get into more specialised areas of the market let's take a look at what the general airgun hunter will require. These are: a good sight picture; reasonable and practical magnification range; and a suitably-sized objective lens to give a good balance between field of view and light gathering. A fairly wide field of view (or width of view) is vital for target 'acquisition', which simply means the ability to find the target quickly in the area you are looking at through the scope. I know this may seem just plain common sense, but using a scope with a relatively narrow field of view, and trying to find the quarry in your sights, can quickly become a nightmare costing you time and missed shooting opportunities. A field of view 'angle' or measurement is often given in the scope's 'Tech Spec' sheet or on the box it was supplied in. If given as an angle, the higher the number means the wider the field of view. If given as a figure – say 30ft – this means the distance that can be seen from one side of the scope's image to the other at a range of 100yds. With variable magnification or 'zoom' scopes there will be two figures, corresponding to the fields of view at the lowest and highest magnification (for example, 30ft and 12ft). The higher the magnification of the scope, the narrower the field of view will be.



There's a very varied selection of scope mounts to suit all rifles and fitting configurations

Build construction is another major feature you need to consider when buying a hunting scope. For most, if not all, of its active working life it will be exposed to the elements and even on dry days it's surprising just how much the weather can throw at your equipment. Dampness, early-morning dew and humid conditions can cause condensation build-up when shooting from dawn into daylight, or in the evening chill. You'll notice the times when you need to wipe both lenses due to early-morning dew, or the rear lens catching the moisture from your breathing. It's handy to carry a lint-free cloth or, better still, a few pads of soft tissue for cleaning the lenses.

Scopes are sealed from the elements, and you'll often see that they are termed 'nitrogen purged' to expel all moisture and air before the internals are nitrogen-filled and sealed. The main areas where water or air could leak into the scope are around the front and rear lenses, any moveable adjustment rings such as zoom and parallax rings, and of course, the turret adjusters. The first barrier to the elements for the turrets is the

turret cover caps or dust covers. Not only are they there to prevent turret adjusters being accidentally knocked and therefore your zero being lost, but also, and just as importantly, they offer a first line of defence against the elements. Their main duty is to offer resistance to dirt and grime, so always screw them snugly into place once you've set your chosen zero.

Personally, I wouldn't consider using a scope for hunting that didn't have turret cover caps. Certain models on the market that don't have cover caps use the so-called 'quick access' excuse, as if this was a bonus. Granted, there are some fine optics with side-wheel parallax adjustment that could well be used by a hunter who really knows his scope, but the possibility of a dial being inadvertently shifted is too great a risk to take when you're dealing in fractions of an inch, which means the difference between a cleanly dispatched animal and an injured one. Target shooters can use these scopes, and certainly use them well, but once you've set your zero on your hunting scope you don't want to have anything that can in the slightest way affect this, or accidentally alter the precisely-set pellet impact point – i.e. the zero. Uncovered adjusters that can be rotated by hand, no matter how positive and secure they seem, will eventually get moved – either by being caught or by brushing against clothing as you move, or even when the rifle is being put into and taken out of a gun bag. So be warned against the possible disadvantages of using this type of scope for hunting. The good news is that specialist scopes with side-wheel adjustment and cover caps can be obtained, and they are worth looking out for when your shooting reaches a standard where you'd benefit from such a sophisticated optic.

As for the turrets themselves, those on scopes of good quality will undoubtedly have sealing 'O' rings that prevent moisture leaking into the scope past the threads of the turret caps and the adjusters. With scope build structure, a feature I particularly favour is for the optics to have a 'monocoque build', whereby the body, including the turret saddle, is made out of one piece of material, preferably aircraft-grade aluminium alloy. Having no joins around the turret saddle means one less area to worry about for potential leakage. In any scope's specification list, look for classifications such as fogproof, waterproof and shockproof. These important three qualities, if mentioned in a scope's technical marketing blurb, mean that you're heading in the right direction in relation to build

characteristics. I'm often asked if a 30mm body tube is better than the standard, more common 1 inch. Basically, it doesn't have any bearing on practical performance that should concern the airgun hunter. Thicker body tubes are likely to be stronger but this is usually due to the fact that they are intended to sit mounted on powerful centrefire sporting and target rifles.

With regard to visual inspection and careful reading of the information slip or pamphlet that may come with the scope, that's about all you can achieve. Any reasonable gunshop owner will, to a certain extent, allow you to handle the goods, and you really should look through the lenses yourself. Even though you can't fit the scope to a rifle, there are still a few basic features to check hands-on without appearing to be overly fussy or fiddly.

First try the magnification zoom ring. It should glide easily up from low to full magnification and back again. Then, if present, check the front parallax adjustment (PA), or adjustable objective (AO) ring, which are the same thing. However, now on many modern scopes there can be a side-focus (SF) dial. This won't be fitted to all scopes, but if it's present try it for operation. You'll probably find this quite stiff to turn, but once the scope is on a rifle they usually operate far more easily and smoothly. Those who say they work loose with use aren't talking sense, because they don't, and you certainly don't want things to work loose. What you might notice is that a parallax ring may stiffen up as you move it to the end of its travel towards the higher settings, which will be the longer-range marks. This is quite common so don't worry yourself unduly over it, as it'll be fine if it runs smoothly from low up to the 50- and 55-yard marks.

Now we come to the features of most contention, the turret adjusters. Whether these are finger-adjustable, target-style or 'coin-slot' operated, give them a good work-through. Listen and feel for the adjusters as they click around to the next setting. Feel for any slack or stiff spots, and give a scope a wide berth if you feel the turrets miss a click to the next station on rotation. Don't go dialling around wildly, but count the clicks left and back again, as the scope is probably already centralised, and if you buy the scope, you don't want to start off with a unit that is too far off-centre. Similarly, if you don't choose to buy, leave it as you found it for the next

potential customer. In passing, I'll mention something almost all hunters I've come across don't check before fitting a scope, but FT shooters take for granted as part of their scope fitting procedure. This is what is termed as setting or checking the scope's 'optical zero'.

For the general specification of a hunting scope, I'd have no hesitation in saying that the 3–9 x 40 is the best option for most situations, and a good-quality optic with this specification will serve you well for many years. Buy a good-quality scope and it will be more than capable of handling most hunting scenarios you'll encounter. But what if you want that little bit extra?

Features, Features, Features

Before we look at the main attributes that you should consider on a scope, think about this – are you choosing a scope with lots of extra, dubiously-useful features, rather than the basic specifications you really need? I've met many people who have. They've read the advertisements, and they've been convinced that their shooting won't be as productive if they don't buy an all-singing, all-dancing mega-scope. The trouble is that such a scope usually has so many features that they'll probably only use a fraction of what the scope is actually capable of and designed to do. Following are the main features that you'll see mentioned in a scope specification, and one by one I'll explain in simple terms what they refer to.

Reticule Types

Reticule or reticule is the term for the two centrally-crossed lines (or other pattern of lines, sometimes called 'stadia', or even 'graticule') that are used for aiming – the most common simply being called a 'crosshair'. All of the terms used are recognised words for crosshairs; I prefer to use the term 'reticle'.

There are many different types of reticle, and their design and methods of use could take up a whole chapter, but on the whole, most airgun hunters are happy enough with standard crosshairs, usually in a 30/30 'thick-'n-thin post'-style format (sometimes called a 'duplex'). This is more than capable of fulfilling all the criteria needed of it from

the general airgun hunter's perspective. However, certain other reticle types are worth considering. These include; crosshairs that have a central diamond, bracketed shape, scopes with illuminated reticles, and the latest favourite, the much misunderstood mil-dot reticle. All have certain attributes that different shooters may or may not feel will help them shoot better. However, in keeping with my view on specifications, I feel many are swayed towards the very latest 'must have' feature. Remember, shooters of all disciplines have hunted successfully with both open sights and standard 30/30 thick-'n-thin crosshair scopes for a great many years; FT shooters have used scopes with specialist reticles for many a moon.

Other specialist scopes with 'ladder' or 'grid' reticle types, mil-dots and even a diamond-shaped reticle have been introduced for the benefits they give a shooter for long-range shots. Most of these are only of real use for rimfire or centrefire cartridge rifles, and the mil-dot system isn't of any major use for an airgun hunter shooting out to 40yds with a 12ft lbs air rifle. However, for the specialised 'long-ranger' who has really done his homework, then the extra aim-points that ladder, mil-dot or diamond reticles offer may be beneficial. I use a scope with either a ladder reticle or mil-dot for my FAC-power-rated hunting air rifles, but only because I sometimes push these rifles to the limits of effective killing ranges. You'll find more on this in the section on FAC-specification rifles.



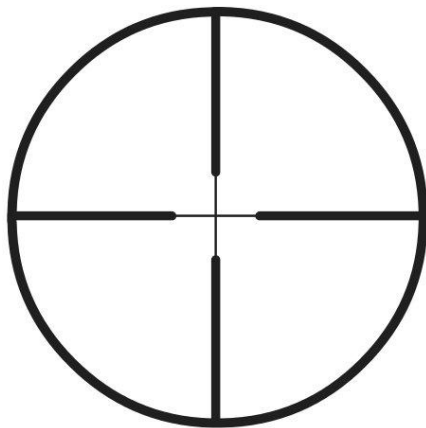
A compact wide-angle scope is the optimum choice for quick target acquisition – ideal for squirrel shooting

Scopes fitted with illuminated reticles have their admirers, and are mainly of use in low-light situations where you might lose thin crosshairs in your sight picture against a dark background. They also have a place when shooting at night with an artificial light source (or lamping, as it's known). My advice, should you choose such an optic, is to ensure that the reticle brightness control (rheostat) gives good variation from low intensity to bright without overly thickening or blurring the crosshairs on the higher (i.e. brightest) settings. While on the subject of low-light shooting, some prefer the vertical post and horizontal crosshair design or, as it is sometimes known, the 'German Post' reticle. Now to the mil-dot or multi-dot scope. You could write another whole chapter on this type of scope reticle alone, but I'll concentrate solely on the benefits it specifically affords the airgun hunter. 'Mil' in the term mil-dot doesn't derive from its military usage but is in fact an abbreviation of the word milradian. Without getting too complicated, it is the term the military gave to the system they devised to make an accurate way of measuring

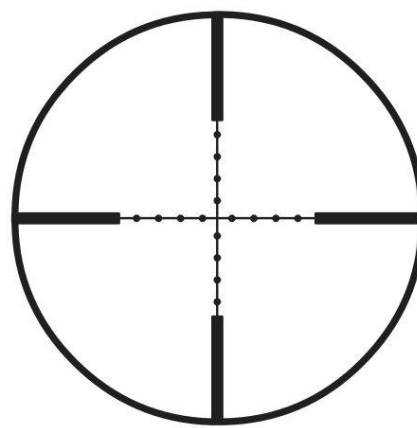
angles and therefore distances in optical instruments. When used correctly, this reticle can establish the milradian angle from the top to the bottom of an object (quarry or target) of a known size. This then allows the distance to the object to be calculated using that pre-determined size. The correct dot in the reticle grid can then be used as an aiming point to sight onto the target.

Two of the Most Popular Reticles for a Hunting Scope

I'm not going to get into the physics and logistics of all this 'dottiness', as an in-depth article on mil-dot systems could quite frankly send you dotty! But these systems are very accurate when used with firearms that have very long-range shooting capabilities. For airgun use, however, the mil-dot is pretty much used as a standard crosshair but with a far greater range of aiming points. So if you feel this reticle will be of use to you, then it's an option that's available. Granted, you get multi-aim-points for different ranges and side dots for wind allowance, but they're only of use if you've done your homework very carefully on the target range to familiarise yourself with the trajectory of the pellet's flight. Once you can correspond specific distances with each dot on the vertical post, you'll effectively have a zero point for a whole range of distances.



30/30 Dulex

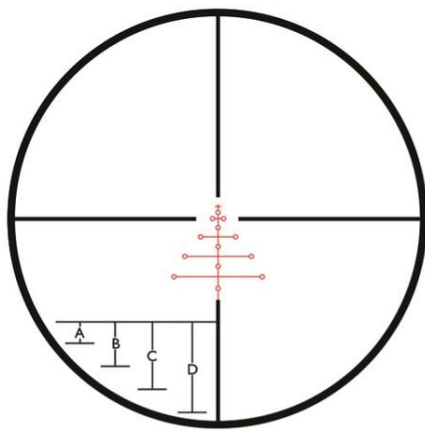


Mil-Dot

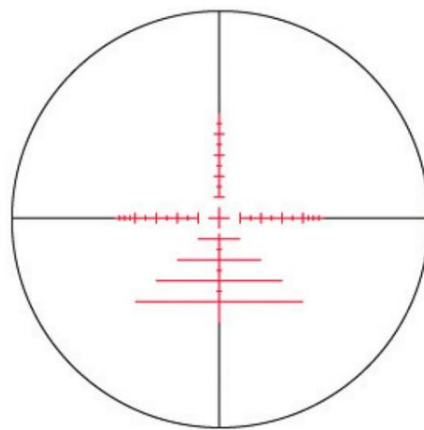
A final factor to consider when choosing a reticle is how it appears to your eye in different lighting conditions. By far the most versatile is the reticle that appears black against a light background, but a reflective gold

colour against a dark background. This small feature can be found on some relatively low-priced scopes, yet may be absent on several more expensive models (especially high-magnification target models). Nevertheless, this one feature can make all the difference when it comes to being able to place a crosshair on the target, or, if targeting on a dark background, not being able to see the crosshair at all.)

Because of their lower power, air rifles tend to have a far more pronounced trajectory than cartridge rifles. Since the first edition of *Total Airguns* was published, certain optical manufacturers have worked on bringing us scopes with specialised reticle designs – similar to the mil-dot concept – to help cope with the steep trajectory of airgun pellets. The designs of these specialised reticles offer more aim points (often referred to as ‘hash-lines’ or ‘dots’) on the vertical line of the crosshair. This allows the shooter easy hold over, or hold under, reference points for targets that are further or closer than the scope’s set zero distance. There are often other markings on the horizontal line(s) of the reticle that can be used as alternative aim-points to allow for the effect of crosswind.



HAWKE OPTICS SR 12



MTC OPTICS SCB

Two Popular Designs of Multi-Aim-Point Reticles

The trend for these new reticle designs began back in the mid-80s when Hawke Sport Optics (with the help of four-time former World FT Champion, Nick Jenkinson) designed the MAP 6, SR 6 and SR 12 reticles. These were soon joined by equally useful reticles from the MTC Sports Optics range designed by HFT shooter and MTC co-owner Gary

Cooper, such as the Small Calibre Ballistic (SCB), which continues to this day. The two optical companies mentioned are by far the two most proactive when it comes to the development and refinement of these designs for air rifle (and .22 rimfire) use.

It's not surprising that these types of reticles and the scopes they are installed in are already very popular amongst airgun hunters and the HFT fraternity.

The Soft Option

Due to the popularity of multi-aim-point scopes and to complement their own specialised reticle designs, Hawke Sports Optics have made 'rigging up your rig' all the easier. The reason I say this is that you can now use two free downloadable software programmes to help plot the trajectory, and work out the ranges that various aim-points correspond to for a particular hunting set-up. These can be downloaded from the company's website (www.hawkeoptics.com). Then, on your computer, you can punch in your chosen zero range, pellet weight and muzzle velocity in feet per second (fps) using that particular ammo and ... hey presto ... you can soon be printing off trajectory graphs and get all the downrange information concerning pellet drop etc. Obviously, the programmes can be used in conjunction with all the reticles Hawke offer, but the programme is also of use for any airgun hunter who wants to get a solid guide as to what to expect from a particular combo. This data can then be used in the field to fine-tune your references to suit your particular hunting combo as you range test against inanimate targets set at known ranges. There has quite possibly never been a decade that has seen so much advancement in our sport.

Magnification and Range Estimation

A major factor you should consider when buying a scope is how much you want to magnify the target. That may sound strange as a telescopic sight is, as the name suggests, capable of making a target look bigger. However, the downside is that the higher the magnification setting, the more it will appear to exaggerate the dreaded 'wobble' we can all experience when shooting from an unsupported position. A good point

about high magnification is that it can be used in conjunction with the scope's parallax adjustment (or forward-placed focusing ring) to determine range. Not all scopes have a parallax adjustment facility, but those that do usually have the adjustment ring at the front of the scope, around the objective lens hood. On certain other scopes the PA may be positioned as a focusing wheel set on the opposite side of the windage turret. Whatever the design, this ring, or collar, is marked for distance, and with the magnification turned up fully, it is possible to adjust it until the target becomes pin-sharp. You then read the range off the PA focusing wheel – simple! Sometimes the distance you are actually focusing at is slightly different to that indicated on the side of the parallax ring, but you can easily put masking tape around the parallax ring and then mark each distance from 10yds to 60yds in 5-yard increments to suit your particular vision.

I'm sorry to blow away a popular misconception. A, but all this is fine in theory and, to the experienced, trained FT shooter's eye, it's the tool for the job, but how many times in a practical hunting situation is old 'big-ears' going to hang around while you fiddle around with the focus ring, then look over the top to read the distance on a dial, and then make even more movements if you decide to dial in the range from the Bullet Drop Compensation (BDC) facility on the elevation turret? You may get away with it from a totally hidden ambush shooting position, but if not, you'll have to use some other method of range estimation.

This brings us to bracketing, a more useful method of calculating the range quickly for the hunter. As the name suggests, this is where the reticle is used to bracket the target and therefore calculate the range in relation to the size of quarry. Military snipers have long used this term, but they have their own way of using it. Basically, they estimate the closest and furthest a target could be; the difference between the two is known as the 'bracket' and they then use the average of that as an estimation of the range. To airgun shooters, both FT and hunter, the term 'bracketing' applies to using fixed marks on the scope's reticle in relation to the size of the quarry or target, in order to estimate distance to it, but this can have major drawbacks for hunters. FT shooters know that they are bracketing on a standardised 40mm circular hit-zone on a static target, so they can be fairly confident of consistent results, yet even they

rarely use the method anymore because it is not precise enough for their needs, but it does work well in conjunction with the focus method, just to confirm a parallaxed range estimate.

Unfortunately, live quarry doesn't come in standard sizes, and they also move – both factors that make it far more difficult for the hunter to bracket a range accurately. Also, in the case of rabbits, although it's fairly easy to establish that you're looking at a young rabbit due to the size of its ears in relation to its head, it can be very difficult to assess if a rabbit is three-quarters or fully grown. All bracketing methods should be treated as guidelines only, and not set in stone; so once you've worked out the distances these targets appear to be, it's still only an approximation.

Obviously, different reticle types offer various bracketing capabilities. What suits one shooter won't necessarily suit the next, but many find the standard 30/30 or duplex crosshair more than useful. It's worth noting here that the reticle got the 30/30 designation as this scope, when set on 4 x magnification, is designed to measure 30 inches from point to point of the thick, outer posts at 100yds, which is the approximate chest depth of an average North American deer. This predetermined size can be scaled down on more appropriate airgun quarry, and then used quite effectively for rangefinding by the shooter who's done his homework on the target range. On this style of reticle you also have three set aim points on the vertical line for range – the central cross and the two points where the thin hair meets the thick posts at the top and bottom. You can even add the midway point between dead centre and thick post of the upper and lower horizontal as a floating, semi-fixed aim point. Using the crosshair I like to set my scope zero, then find the optimum magnification where the tip of the bottom thick post gives an aim point to hit the target cleanly at 60yds. This gives a very good reference for adjusting and 'guesstimating' holdover above my original initial zero for longer-range shots. If using the scope in this manner, always remember to change up to or stay on that set magnification, otherwise it can become confusing due to variables. In fact, only dedicated practice and field hunting experience will eventually give you the required rangefinding skills.

To recap on scope choice, here are a few key guidelines on optics, giving general specifications and the hunting techniques and situations they're best suited to.

Scope – Minimum 1.5 x or 2 x up to 5, or 6 x magnification with minimum 20mm or 32mm objective lens.

These scopes are ideal for carbine-sized rifles due to their compact dimensions. They're also the ideal choice for close-range shooting and when the target needs to be found quickly in your sights. The latter is allowed for due to the low magnification giving a wider field of view. The drawbacks of low-magnification, small-objective lens scopes are limited range for precise pellet placement, and lower light-gathering capabilities. However, some models of these scopes are worth a look for hunting at mainly close to medium range, no matter what the light conditions. They're ideal for close-range rat and feral pigeon shooting, indoor work, and certain night-shooting applications with a lamp.

Scope – Minimum of 3 x or 4 x up to 9, 10, or 12 x magnification with minimum 40mm objective lens.

Here, we fall firmly into the 'general purpose' category and these scopes suit both carbine and full-length rifles. As I've said before, there's not much a 3 – 9 x 40 scope can't cope with. It can be mounted in medium-height mounts, and mounting shouldn't be a problem on any air rifle. They'll suit the hunter looking to try his hand at anything and everything, from stalking to roost shooting. They give a good compromise of reasonable magnification range, reasonable field of view on the lowest magnification setting, and have very acceptable light-gathering properties.

Scope – Minimum 3 x or 4 x variable up to 12 x, 16 x or 24 x magnification with minimum 40mm objective lens with parallax adjustment.

The higher magnification range means longer-range work is feasible, and the PA – if used with a high magnification facility – can be useful for estimating range. Still of use for general hunting, you may find these scopes are generally longer in the body, and mounting therefore has to be suitably catered for. These are scopes for the hunter who wants to gain optimum accuracy at long range, and they're especially handy for roost shooting and longer-range, sniper-style ambush shooting on bunnies.

Scope – Minimum 3 x or 4 x variable up to 12 x magnification with minimum 50mm objective lens.

This is the classic specification for low-light dawn/dusk hunting. Some prefer an even larger objective lens, but despite the slight benefit that may offer, many feel the ‘Five-O’ to be more than adequate. That big objective lens will suck in all available, useable light, and you can still wind the magnification down to take advantage of a wider field of view. The lower magnification should give better picture quality, and will certainly be more efficient at light-gathering.

There are more options, but of those mentioned this is one that will suit every hunter. Of course, there are scopes with objective lenses up to 56mm, and also a few specialist optics that can drop down a touch from 3 x in an otherwise general-purpose specification scope, but by and large, the scopes discussed above are the ones to concentrate on.

Scope Accessories

Some optics can be fitted with sunshades. These are plain black tubes that screw into the front lens housing to stop the sun causing glare across the scope’s lenses. Covers can also be bought that simply slip over the front lens to protect the glass elements when not in use, and some are see-through with a tinted shade, which allow the scope to be used while still in place – a useful feature in bright sunlight. Also available are rubber eye-shades that can be slipped over the eye-piece, and the intention is to block out light that could potentially cause glare in the rear lens, again affecting the performance of the scope.

Scope Mounts and Rings

It’s strange how many shooters pay scant regard to scope mounts, especially as they play a vital role, being the only attachment points for the two major components of your hunting combo – the rifle and the scope. All modern air rifles have machined grooves or raised rails to take a standard dove-tailed scope mount – the width of the grooves usually being between 11mm and 13mm.



Correct alignment of the scope's cross-hairs to the rifle is very important in making your combo perform to its maximum accuracy potential

Mounts come either in two pieces, logically known as two-piece mounts, or as a one-piece mounting unit. Usually, they're designed for scopes with 1-inch diameter body tubes but as scopes of 30mm are available it follows that suitable mounts are readily obtained for those, too. Good-quality scope mounts are manufactured from either aluminium

alloy or steel. Obviously steel ones are stronger, but over-tightening the rings can easily damage an alloy scope body tube. Alternatively, alloy mounts can easily be damaged by the steel screws used to fasten the mounts to the top of the dovetails and around the scope body tube. So be careful not to over-tighten the screws when mounting your scope.

Mounts are available in low, medium and high sizes. These are to accommodate the fitting of the scope close to the bore line of the barrel without the objective lens fouling the top of the rifle. Low mounts will usually suffice for scopes with objective lenses up to 32mm; medium ones will accept up to 42mm, while high mounts will be necessary for scopes with big front lenses of up to 56mm. It is worth noting that if low mounts can be used, then this is the better option for close-range hunting. Higher mounts are the optimum choice not only for scopes with large objective lenses, but also if most hunting is done at longer ranges. Thus, medium-height mounts are the optimum choice for general-purpose work at medium range, and will suit most airgun hunting needs. Scope mounting height is particularly relevant to pellet trajectory.

A mount comprises three main components, the rings (the lower cradle where the scope sits, and upper part that clamps it down into place), the base, or bases, (the attachment points to the rifle), and the bolts (usually Allen-head screws) that hold everything securely together. The top halves of the rings are removable, while the bottom section (cradle) is either bolted or otherwise permanently fixed to the base. Some mounts are designed with the upper rings being almost two-thirds the diameter of the scope body tube, often referred to as having a wrap-around design. Some prefer these, as they reputedly offer a more stable mount due to the fact that the upper ring pulls down and around the scope, providing more clamping area than a conventional mount involving two hemispheres. In reality, both are very well suited to airgun use.

Opting to use either one-piece or two-piece mounts is largely a personal choice. However, a one-piece mount was formerly recommended for use with a recoiling air rifle, because you had a greater length of scope mount base and therefore additional grip due to the extra metal-to-metal contact, but if you mount your scope sensibly, two-piece mounts are just as efficient. Generally speaking, one-piece mounts are

unsuitable for PCP air rifles. Unless the one-piece mount fits behind the breech loading area (for a single-shot rifle) or behind the magazine housing (of a multi-shot rifle) then you can't use it, because it covers the breech, making it difficult or impossible to load a pellet, or else it fouls the magazine. Two-piece mounts are much more versatile as they can be positioned almost anywhere along the scope body and on the rifle's grooves or rail.

That brings us to the mounting point itself – the grooved channel cut into the top of the rifle's compression chamber or the machined rail on top of a PCP's action block. The former is found on most springers and this is where certain manufacturers machine special features to stop mounts moving on recoil. These can be cross-slots or shallow holes drilled between the dovetails, which engage small lugs or studs found on the base of some scope mounts. Once a mount with a stud on the base is located at this position, it isn't going anywhere. Similarly, if a recoil lug or arrestor block is fitted, with the scope mount butted up to it, this shouldn't move. Both act as a physical stop to anchor the rear scope mount in place, thus resisting movement on recoil.

If you're using a rifle with hefty recoil – say an FAC-rated springer – then anti-slip studs on the mount or an arrestor block is a very sensible precaution. Alternatively, use the DampaMount™ mentioned earlier, as it's a handy solution to stop the effects of recoil being transmitted to the scope on firing.

Before leaving mount design, it's worth glancing at the 'specials' that are available, such as adjustable mounts and risers. You can find that even though you have correctly fitted and set up the scope, you run out of movement on the elevation turret to set your zero at the required range. This usually happens when fitting a scope more suited to firearms use, and therefore calibrated for much greater distances. Even so, if you want to fit such a scope you can pack the rear mount with shims made from small strips of film negative. These go between the cradle and the scope body until the rear section is raised sufficiently to allow adjustment to be made. However, if you overdo it and try to raise the rear of the scope too much, there's a danger of exerting undue leverage on the scope body, with the potential for damage by bending forces. In this case it is much better to use a special mount raiser. These are usually one-piece mounts

with the rear mount made slightly higher than the front one. Some can actually be adjusted to sit higher or lower, and even to move from side to side. However, we're really getting into rather specialised kit here, and I feel that 99.9 per cent of airgun hunters will never need to go this far. So, we'll move on to other mounts that will be more generally useful. These are 'set-backs' and 'see-thrus'.

Set-back mounts are always of the two-piece type, and can also be known as 'reach' or cantilever mounts. This is because they can be used either for mounting a scope further back on the rifle or further forward, in both cases to give optimum eye relief. This is done by one mount having the rings positioned away from the base of the mount – from the side, looking rather like an L-bracket. These mounts also allow scope mounting on PCPs that may have an awkwardly located breech, or the rails machined in such a way as to restrict positional adjustment of the scope. These mounts are also handy for avoiding any fouling of the scope's eyepiece, saddle or front lens assembly against any part of the rifle. See-thru' mounts have already been mentioned for spring-powered rifles, where the shooter uses a scope but also wishes to take advantage of using the fitted open sights. These can be advantageous if your shooting takes you from normal ranges to close-up work.

So those are your mounting options. Now we look at setting up the scope.

Mounting and Setting

Even some quite experienced airgun shooters will just plonk a scope in mounts, set the middle crosshair as horizontal as possible, clamp up and then set zero. In theory, that's pretty much all you need to do, but it really needs to be done correctly. Here are some important dos and don'ts.

With suitable mounts chosen, fit them loosely but firmly onto the dovetails or rails, taking care not to obstruct the barrel's loading area or magazine housing. Then remove the top ring sections from the mounts and you're left with the cradles for the scope to sit in. This brings us to optical zero. On a new shop-bought scope the optical zero should be pre-centred, but to save time and to get the best performance from your optics it's well worth taking the trouble to check.

Basically, all you're doing is ensuring that the reticle is central in the scope body and therefore making the best use of available leeway for elevation and windage adjustments. First, dial the elevation turret all the way to the top of its travel (i.e. in the arrow direction up), then wind it fully down again, while carefully counting the number of full turns the turret takes until it 'bottoms out'. This will usually be around five full turns, so if the total is five, you should wind back two and a half turns, and then it's approximately centred vertically. Go through the same procedure with the windage turret and that will set the optical zero in both the vertical and lateral planes.

Eye-relief and Crosshair Alignment

Having done the 'centralising check', carefully tighten the base of the mounts to the dovetails or rail, and loosely fit the top sections of the rings so that the scope can't fall off the rifle, but loose enough for it to be moved backwards and forwards, and rotated. If using a break-barrel rifle, check that the front of the scope doesn't overhang the breech, which would foul the barrel and prevent it from opening fully. That's commonsense stuff, but easily overlooked.

Next, you have to set eye-relief as follows: Lift the rifle/scope combo to your shoulder, get into a comfortable shooting position, and then slide the scope gently within the mounts until you can clearly see a perfectly circular sight picture through the scope with a minimum amount of black border around it. This should be around $2\frac{1}{2}$ – $3\frac{1}{2}$ inches between your eye and the scope's ocular bell. You may find that this procedure is easier to do while sitting down with the rifle in a bench rest shooting position, but take care to check that you still have approximately the same sight picture when standing, kneeling or lying prone with the rifle unsupported. If not, make the final adjustments to eye-relief while holding the rifle in your most frequently used shooting position.

Once you've attained the eye-relief that's suited to you, you need to align the cross-hairs square to the rifle itself. I advise hanging a vertical plumb line (a thread or string with a weight at one end) at approximately 10–20yds distance from the scope. I have an old door to the side of my target range backstop set up with a plumb line just for this purpose. Look through the scope and make sure that the vertical wire of the crosshair

lines up with the plumb line when you are holding the rifle in your usual shooting position. If it doesn't, gently rotate the scope within the mount rings until it does. Once you are certain that the scope is square to the rifle, carefully tighten the mount top rings on to the scope by nipping up the Allen screws in rotation. If using mounts with four top screws per mount, tighten those which are diagonally opposite each other. Tighten firmly, but don't over-tighten. If you're using a PCP, recoil won't be a problem in causing scope shift, so over-tightening shouldn't even be an issue. Once the scope is secured, recheck that the crosshairs are still set correctly. If not, loosen the screws and repeat the procedure until you are satisfied with the result.

A scope set slightly off the horizontal won't perform to its optimum level when using the turret adjusters. This is because of rifle cant, which I'll explain. For instance, if the horizontal line of the crosshair is only slightly askew to the rifle, then when you adjust the elevation turret of the scope – say to alter the impact higher – you could also unintentionally shift the pellet impact point to the left or right, depending on which way the scoped rifle is canted. This is because your brain will automatically make you twist (or cant) the rifle to one side or the other to make the crosshair appear square-on. If you're not shooting at long ranges the lateral variation of the aim point caused by cant may not be very noticeable, but at longer distances the deviation to right or left gets progressively greater. So as you can see, correct alignment of the scope's crosshairs to the rifle is very important in making your rifle and scope perform to their maximum accuracy potential. A scope set perfectly in line with the rifle is also important for using the BDC (Bullet Drop Compensation) facility that is a feature on many rangefinding scopes.

Now we move on to the next adjustment you should take time over – the fast-focus or reticle focus ring. Strange though it seems, this is a feature many don't bother with, but if your scope has this adjustment you should definitely take advantage of it. This feature allows you to set the scope reticle to focus for your individual eyesight. It's a simple procedure, but one that needs doing correctly. First, look through the scope at a light-coloured blank wall, or up into an overcast sky (never a sunny one). Look into the middle distance but take notice if the crosshairs are blurred or sharp. The reticle must suit your eyesight, so

adjust the eyepiece until the crosshairs appear crisp and sharp to you. Many scopes have fast-focus rings and very handy they are too, but if not you may have to loosen the locking ring on the eyepiece and rotate the bell itself until focus is achieved and then tighten the locking ring. Once this is achieved, you're ready to set the rifle to shoot to a chosen zero point. In addition to these manual instructions, there are commercially available devices that help you visually align the crosshairs with the bore axis, and even for the scope crosshair to be set perfectly vertical in relation to the action of the rifle. If you feel you need it, they can help.

Setting Scope Zero

Setting the zero on the rifle/scope combo is also a relatively simple procedure, but one that needs to be done correctly so that you'll always hit your mark. Note that the rifle's zero, even when set, will shift depending on your shooting position. This applies more to a recoiling spring rifle than a recoilless PCP, but if you set the zero for a standing shooting position, it will still alter slightly for a shot taken in a kneeling or prone position.

To start by getting roughly on target, first set up a large piece of paper at 12–15yds range on a suitable backstop. This target needs an aiming point, and a 2-inch black circle marked in the centre with a marker pen is ideal. Fire a string of four or five pellets, with your crosshairs trained precisely on this point. Make a note where the pellets group and then dial the turret adjusters accordingly, to move the group closer to your black dot aiming point. Repeat this until you're hitting the point you're aiming at. Next, put up another target with a 1½-inch circle on a suitable backstop and pull back so that you are shooting from the distance at which you want to zero your combo for hunting. Shoot and adjust until you're grouping your shots inside the circle on the target.

The turret adjusters on most hunting scopes alter impact by what is known as ¼" Minute Of Angle (MOA) increments. This means that the impact point is shifted a quarter of an inch per click at 100yds. At airgun distances, this has to be compensated for, so at 25yds this equates to four clicks, moving the impact point of the pellet by a quarter of an inch. Specialist target scopes often have ⅛" MOA adjustment, moving the aim

point one eighth of an inch at 100yds. Which distance to choose for your zero can be debatable, so newcomers, and airgun hunters looking to undertake some general hunting, would be advised to use this as a loose guide. For a .22 calibre recoiling spring or gas-ram-powered rifle, set your zero at 25yds. For a .177 recoilless PCP air rifle set the zero point for 30yds. These zeros give you a good aim point for longer-range effectiveness, yet with a closer range reference point. With a .22 set to 25 yards zero you can also aim bang-on for 10–12yds, then slightly lower for 18yds. Then raise your aim appropriately to put the crosshairs bang on target for 25yds. After that only practice on target cards will show you how much to allow for aiming holdover at longer range. This is something we will deal with more fully in the relevant section. As you can see, the set zero is there to give you a definite aim point at your set zero range, and also a reference for closer-range shots.

Pre-charged pneumatics (PCPs) are recoilless, and the .177 calibre has a much flatter trajectory than a .22, so the whole package is much more forgiving in range estimation and assessment. You'll find on larger target kill-zones, such as a rabbit's head, with a zero of 30yds you can actually aim bang-on for ranges of approximately 20yds to 40yds and still be within the kill-zone. Incidentally, an important factor in zeroing that should always be adhered to is using the same ammo as you set your zero with. Change ammo and the zero will change. It may only be slight in relation to pellets of a similar weight and profile, but often it is enough to upset your accuracy, and therefore your efficiency as a hunter.

Although I've fully detailed how to manually – i.e. by eye – set the zero, you can purchase a gadget which is known as a 'bore sighter' or 'shot saver' that will aid the process. These can be in the form of a collimator gauge or a more hi-tech laser bore sighter. The latter fits into the barrel and actually projects a laser dot out from the barrel bore. This is all good kit, but setting up in the old-school way is by far the most commonly used method for airgun use.

Alternative Sighting Systems

With the exception of specialised night vision riflescopes, there are few alternative sighting systems for use in hunting, and none that offer a

better option for all-round, precision shooting than the telescopic sight. However, for close to medium-range work, you do have a choice of sights that offer a reasonable (and in some cases better) option to obtain quick target acquisition. These are red-dot or 'holo' sights. I'd recommend a few of the red-dots that are available, but then only for rat and feral pigeon shooting, or possibly rabbit shooting when I'm sure the range will not exceed 25yds. And even then, if the quarry is further out I keep disciplined by using the sight at its optimum level of accuracy. The main reasons I'll use a red-dot are when using a PCP air rifle for close- to medium-range shooting. The sight then virtually offers all the simplicity and benefits of an open sight coupled with the obvious benefits of a multi-shot PCP.

The red-dot sight that made the biggest impact on my own hunting was the Russian-manufactured Cobra, a sight originally designed for their military for use on the AK47 assault rifle. Obviously, reliability and build construction aren't an issue. Swedish manufacturer Aimpoint have red-dots suited to hunting, as also is the Bushnell Holo-Sight. If a red-dot appeals to you and will be a suitable sighting option for the hunting you are doing, they're all worth checking out. However, I'd like to dispel the popular misconception that they're useful for night shooting. Where this myth has arisen from is anybody's guess, as they're of little use without some light. In gloomy conditions they do give you a sight point, but as for being a true night sight – they're not.

Electric Eye

Laser sights project a laser dot onto the target, but rather than being a primary sighting system they are more useful in helping the shooter estimate range in low light conditions.

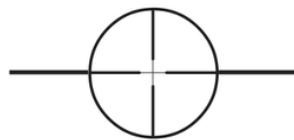
I first took an interest in lasers in the mid-1990s when the American Beamshot lasers came on to the UK hunting scene. I must say my flirtations with them have been somewhat sporadic, sometimes favouring them and at others having little use for them. Though specialised, in the right situations they're handy to have.

How the laser sight is mounted dictates how you use it to assess if a target is closer or further from your set zero. The rules are simple to

remember once the laser is mounted securely and has been set to coincide exactly with your crosshairs at the rifle's set zero point. If the laser is mounted below the rifle barrel, and therefore below the bore line and scope line of sight, then when the laser dot shows on the target lower than the crosshairs, the target is closer than your set zero. If the laser dot appears above it, the target is further than your set zero. Of course, the opposite applies to a laser mounted above the scope – laser dot lower = target further; laser dot higher = target closer.

A radical move in the development of lasers is that there are now models available that project an infrared dot which can only be seen when viewed through a night vision device; for instance, when wearing night vision goggles or, more commonly, when used in conjunction with a night vision (NV) riflescope. Their uses are one and the same – to help in rangefinding under difficult shooting conditions. Infrared (IR) lasers and NV sighting systems and other relevant NV equipment are very specialised, but make exciting and worthy additions to the airgun hunting scene. All these 'after hours' sighting devices and their use will be fully detailed later, in the applicable sections on hunting methods, and there'll be more pertaining to the use of both types of lasers and their benefits and usage in the chapter on Shooting At Night.

Finally, one very important factor should be remembered; even with all this hi-tech help; it's the hunter who has fully familiarised himself with his kit who will be really successful.



3

Choosing a Rifle

Combination and Usage

On first inspection of my gun rack you'd be forgiven for thinking one or perhaps two things.

I've far too many air rifles and/or I'm a collector. Neither is strictly correct, because each rifle and scope combination, or to use the shortened term, 'combo', are in my armoury because each individual 'rig' is set up to serve a specific purpose.

As well as being a very keen sporting shooter, I do my fair share of pest control shooting in every conceivable situation where the air rifle is useful. It's largely for that reason that I have so many different combos, but if I were only using air rifles for sport shooting, then I would own and use far fewer. Since *Total Airguns* was first published, I have cut back on my rifles because new ones are now capable of multiple tasks, so if you make a carefully considered purchase, one air rifle is able to replace two or three for multiple-purpose roles. But all airgunners should have an air rifle with specifications that allow it to be used for what can be termed 'general purpose' hunting. These are the three main categories of combo most useful for hunting, and are given in more detail at the end of the chapter.

- **General Purpose Hunting Combo:** Either spring-powered or gas-ram with iron sights or, preferably and more commonly, a general specification scope. If necessary, please refer to what I consider constitutes a general hunting scope, comprehensively detailed in the previous chapter.
- **Precision Hunter:** Single or multi-shot PCP with a higher specification scope.

- **Dedicated Night Hunting Rig:** A multi-shot PCP with a night vision rifles cope on board extra IR and a laser, or if a traditionalist, a springer, gas-ram or PCP with a suitable optic and scope-mounted lamping kit.

If you don't intend to hunt regularly at night, then you can forget number three; so now we're down to just two combos. You're probably already aware, even if you've chosen all three, that there can be many permutations of mixing and matching. A rifle classed as a precision hunter could easily handle anything asked of a general-purpose rifle, even for tackling pests around the farmyard, barns and other outbuildings.

In fact, it would be all too easy just to say, 'Buy the best springer and best PCP multi-shot air rifles you can afford, get a gun-mounted lamping kit and/or NV module and leave it at that.' If I did, this would be a very short chapter and you'd not be given a reasonable number of useful guidelines to get the most from your chosen, and possibly one of the most challenging, shooting disciplines.

To have a spring- or gas-ram-powered air rifle as a back-up to a pre-charged pneumatic is, in my opinion, the least expensive option, and a very sensible and practical route to take. If you have a .22 calibre springer or gas-ram, then seriously consider a .177 PCP for your main hunting rifle. You'll notice as you progress through this book that I lean heavily towards the .177 calibre. I use it extensively and rate the smaller slug very highly, but not for every situation. Before I begin my list of things to look for in a rifle, consider this; under the current legislation you're not restricted to the number or type of 12ft lb air rifles you can possess, unlike the stipulations on FACs as regards exactly which high-powered airguns and 'proofed' silencers you may own. This absence of tight regulation means you can easily chop and change as your shooting dictates or (relevant to most shooters) as your budget allows. In other words, making a costly mistake isn't the biggest risk facing you in your purchase, as you can easily trade-in a good quality 12ft lb air rifle for a different model. Before outlining what I feel all shooters should look for in the choosing of a good all-round, general –purpose hunting rifle, I feel taking a look at the past will be of use.

Suits You

When many shooters started hunting, including me, we had limited funds, and most of us started with humble springers, such as the BSA Airsporter, Supersport or similar models from Webley. The older lads had bigger rifles, and when I mention the Weihrauch HW80 I'm sure many readers will smile as they remember it, as this is the rifle that fits the category perfectly. It was certainly a rifle that many airgun hunters eventually acquired. There was also the Webley Eclipse, an under-lever rifle that has been discontinued, but, along with the Omega model, it's a rifle that many still believe was one of Webley's finest production spring-powered creations. I must also mention a personal favourite - the now sadly discontinued Air Arms Khamsin. This was a side-lever springer that I hold largely responsible for my penchant for thumbhole-style stocks – but more on stock designs later.

Obviously, we had to use what was available, and the selection within our budgets wasn't anything like as varied as it is today. Also, we usually went for the rifle that we thought was the most powerful. The HW80 was even nicknamed 'The Powerhouse' in the advertisements, so it's little wonder that it drew us impressionable kids to it. This brings us to the first consideration because, depending on your stature and physique, you should choose a rifle accordingly. The bonus for today's shooter is that many more carbines and lightweight rifles are available that are capable, full-power hunters. These are not only handy for younger or small-stature shooters, but are also the optimum choice for stalking, hide shooting and even for use from an off-road vehicle. The primary factor concerning your first choice is - does the rifle fit you? That is the way to look at it, because although you needn't go as far as the custom-made stock tailored to suit you for FT perfectionism, finding a 'nice stick to hold' is a vital step towards becoming a proficient shot.

Stock-taking

There are three specifics of a rifle stock that need examination in relation to your personal build. The weight (including action), the reach to pull

(the distance between butt pad to forward face of trigger blade) and the height of the cheekpiece or comb. The latter feature can be altered (raised or lowered) by fitting an adjustable butt pad or comb raiser, but for now let's assume that many will be happy enough with the stock in standard 'sporter' form. Also, never be fooled into thinking a nice-looking gun equals a good-handling gun. I advise you to devote some careful scrutiny and definitely request to handle the rifle you've shortlisted in the gun shop and see if it really does suits you. Or, better put - to see if it feels right.

The reach to pull can be more simply explained as the reach to squeezing the trigger when the rifle is shouldered. Most traditional-style sporters hover around a length of 13 to 14 inches. If it's more, you could find it rather a stretch to reach the trigger, and nothing's more infuriating than a rifle that feels uncomfortable to hold and use. After shouldering the rifle in the standing position, (after politely asking the owner), don't be embarrassed to sit down in the shop and try the rifle from the kneeling position, resting the rifle over your leading hand supported by knee/or thigh. If you are still struggling then it's not for you because in this position you should be able to handle anything. You've much more room for allowance as the stable, rested position allows you to pull or push the rifle forwards. It's a strange phenomenon, but how a person interacts with a rifle physically does change the perception of It.

Some prefer to have chequering or stippling on the pistol grip and the forend, which should afford a much more assured hold. Unfortunately, the forend chequering or stippling on many rifles is not always in the ideal position, so in many cases this can be purely cosmetic. Granted, it is very handy if you want to carry your rifle in one hand. The method for using the forend for this is to grip the rifle under the stock and along the forend with your right hand at the chequering, allowing the unloaded rifle to point downwards at the ground when carried alongside your right leg (assuming you shoot from your right shoulder). It is a safe, comfortable hold when you have to move across ground where you may need to use your other hand to steady yourself, and it is a very much better proposition than using the scope as a carry-handle! Alternatively, of course, if you've got quick-detachable (QD) swivel studs fitted, you can

quickly and easily attach a rifle sling and shoulder the gun while you negotiate the terrain.

Chequering or stippling can be useful at the pistol grip, especially if the hunter becomes a devotee of full camo, and wears gloves. Personally, I don't worry unduly about these stock characteristics, but I do prefer the stock to be of a thumbhole design and/or to have an adjustable butt pad. Some think that's strange for a dedicated hunter such as me, but I've taken these preferences from the stocks fitted to FT rifles. These features allow me to tailor the height of the cheekpiece or comb for optimum eye-relief on the scope, and the thumbhole gives me a very sure feel while handling and lining up to take a shot.

The majority of my hunting rifles have adjustable butt pads. These are often fitted after purchase, but some rifles do come ready fitted with them. If the rifle you're thinking of buying hasn't got one – and if it's a basic springer it probably won't, fitting one isn't difficult. Fitting a stock comb riser kit is more daunting, some find this another useful addition.

Next on the checklist is whether you opt for a walnut stock, or the less expensive beech or hardwood. We now have wood with a 'grippy' rubber over-moulding and even full rubber stocks with a grippy, tactile feel. I've really taken to these and some very fine hunting air rifles are now available with this type of stock as an option. However, if you are worried about the disappearance of wooden stocks (as some foretold) or them becoming prohibitively costly – don't! With the existence of many different hardwoods worldwide, most actually being the wood of fruit trees, I believe that new types of wood will eventually enter the scene, but the old, traditional woods will still be with us for a good deal longer. So, is it to be beech or walnut? I'm no 'mantlepiece' gun collector, but I certainly appreciate a nice-looking configured grain pattern on a walnut stock. Do remember that a hunting rifle will be subjected to its fair share of knocks and scrapes when in the field. If you can't bear the thought of that lovely wood getting scratched, don't buy it.

Left-handed shooters aren't forgotten and dedicated left-hand stocks are available for some models of air rifle, though generally cost extra. Fully ambidextrous stocks, with a cheekpiece on either side of the furniture to suit a right-handed or left-handed shooter, are very much commonplace in the mid-price bracket for springers, gas-rams and PCPs.

Some PCP air rifles accommodate for 'lefties' even more by having a rear-mounted cocking bolt that can be altered so it can be set to the left for easier operation. As for weight difference between wood types, it's usually so minimal that I feel it's of little relevance. If there is one thing to consider it's this: a walnut stock that is kept dry after use and regularly oiled does last longer than beech. If weight-saving is a major consideration then look to the rifles that have what are known as 'skeleton' or 'profile' stocks. These are pared down to the barest minimum to save on weight, but without sacrificing strength.

Thankfully, the laminate stock is making a comeback and not only on custom specials or limited edition runs. Certain gun manufacturers have seen that airgun hunters do want these types again; for example, Weihrauch are currently offering the option to purchase the HW77K in two choices of 'seasonal identified' colour blends of laminate stock. The company have called these Summer Forest and Autumn Forest – not very imaginative maybe – but the laminate stock design is also far more ergonomic, and in Autumn Forest it would blend into most areas in which we operate throughout the year.

As you progress as a hunter you might decide to have a stock specially made for your particular style of hunting, a stock that your favoured hunting rifle would slip into and which would fit you like a glove. Interestingly, of all shooting disciplines, airgunners are some of the most likely to have a custom stock built and fitted to their rifle; and that's not only FT shooters, because more and more airgun hunters choose this route as well.

It was in the UK where a manufacturer excelled in the design and production of a stock that garnered praise when it was first seen on the BSA Lightning Tactical XL break-barrel springer. Designed by Jon Sykes of Hydrographics and using a 'hush-hush' formula to create the ABS mix to enable the stock to be high-impact resistant, this stock transformed any BSA rifle it was fitted to and such was its popularity it eventually became an option on most PCPs, even scaled down to suit the BSA Ultra single-shot and multi-shot.



In the right hands, a silenced air rifle is a deadly, effective tool



If you don't intend to specialise in night hunting – you won't need a dedicated night vision rig

All Important

This may sound obvious, but a general purpose hunting air rifle needs to be capable of cleanly dispatching vermin out to 30-40yds depending on your shooting ability. That's not a great distance, and virtually all good-quality, spring-powered and gas-ram-powered air rifles will be up to the job. So in that sense you don't need the recoil-free PCP multi-shot to be successful in the field. Often the rifle can be capable of achieving more than the hunter who uses it, so if you're only planning the occasional hunting foray then a basic springer or gas-ram-powered air rifle will serve you well for many years, but I must reiterate an important aspect of the sport. Not that long ago, most experienced shooters would advise you to start off by choosing a spring-powered rifle for hunting; but due to the

fact that good-quality pre-charged pneumatics are now much more affordable, if you're willing to pay for charging gear, then a PCP can be a superior choice for many hunting scenarios, and a multi-shot is even better. Before we look at pre-charged or multi-shots, it's time to get back to basics and see what the hunter should be looking for in a mechanically charged and primed, single-shot air rifle.

For spring-powered air rifles, there are high-quality models with all the requisites from established British manufacturers such as Air Arms, BSA and of course the German company Weihrauch. If it's a gas-ram then at one time it would have been a Theoben; now as mentioned previously, there is an increasing number of gun manufacturers who make gas-strut-powered air rifles. Of the companies mentioned, all have rifles suitable for general hunting work. These will be no-nonsense, ruggedly built, reliable, accurate sporters. They'll handle well, and some will even be fitted with a good set of open sights. Immediately, this brings us to a feature of certain springers that makes them advantageous over others for some hunting situations. If you're intending to shoot at close- to medium-range at quarry such as rats or feral pigeons then you can't beat a basic break-barrel springer with open sights. For what I'd term 'knock-about' work it's still a very useful tool. However, whilst I still have rifles like that, I now only use them for the most basic jobs, and when many of us began shooting with air rifles, we just couldn't afford a scope!

Shooting with open sights brings its own advantages and merits. Most hunters now skip straight past these rifles and scope-up immediately. There's no denying the benefits of using a decent scope, but a whole generation of shooters have missed a very important part of the learning curve associated with the shooting of air rifles, especially if they start with a PCP. The reason is that learning to shoot with a recoiling, spring-powered air rifle instils a definite shooting discipline and, once mastered, you can then fully appreciate the benefits of the recoilless attributes of a PCP. All this will be discussed in the chapter on Gun Handling. But let's return to springers and gas-rams, and in particular to a consideration of the features that should be considered when choosing a rifle of this type.

First, if you don't want open sights, then don't worry. It may seem as if I'm contradicting myself, but if you are going for quarry at 25 – 30yds,

you should be scoping-up straight from the off. Just as importantly, choose a rifle that is threaded at the muzzle to accept a standard ½” UNF-threaded silencer. Unless you’re sure of the make, or you’ve tried before you buy, be aware of rifles with silencers that come bonded onto the barrel. In most cases, these perma-fix moderators are more than adequate for general purpose work. The rifle will also usually be shorter than a similar model that requires you to screw a silencer onto the barrel, thus increasing the rifle’s overall length. This is something I’m always critical of, and it does tend to annoy me when I see a company boasting that their new model is ‘ultra- short’, when the reality is that you need to take the additional length of a silencer into consideration. If it doesn’t slip over the end of the barrel it will usually add another 4-6 inches to the overall length of the rifle. On a carbine-sized, break-barrel springer this can be beneficial, because it will act as a cocking aid for the shortened barrel, but on a standard-length rifle it can tend to make the rifle feel overly long. The worst-case scenario is that it can make the rifle feel unwieldy and unbalanced, but this is thankfully now quite rare. Most are manageable, and you can opt for a carbine or carbine version with a silencer bonded in place, or as an outer sleeve, usually referred to as a ‘bull barrel shroud’.

I’ve no doubt that when bull barrel shrouds first came on to the scene the intention was that they’d be cosmetic, but they function now on most rifles as an integral ‘primary’ silencer. Originally, as well as being cosmetic, there was no void between barrel and shroud so they strengthened the barrel. Then, they become in-vogue because the larger they were, the more they gave most rifles a macho appeal, but on full-length rifles this tended to make them feel front heavy. However, certain companies realised these shrouds could be used as a primary silencer but only if correctly fitted with silencing baffles, and a way by which air could be used most efficiently to send the pellet on its way. Excess air would be vented back down the gap that could be left in, between it and the barrel, so air exited at pre-drilled holes often found close to the front end of the action block. Hedging their bets, they still often add a ½” UNF male or female threaded muzzle protected cover cap; this often accepts a secondary silencer. The early models were quite a disappointment. On certain full-length rifles, it did work to a degree as the shroud was so long

it had a deadening effect on the discharge, but to shorten the barrel and shroud was a big no-no. It was about then that I hoped companies would ditch the idea and concentrate on making more efficient silencers, which you'll soon read, they did.

On the subject of barrels, it's interesting that British companies such as BSA and, before their demise as a manufacturer, Webley & Scott Ltd, produced their own, which is a tradition that I hope BSA will long continue because these tubes are strong, accurate and well manufactured. For PCPs, however, most companies now choose to buy barrels from acclaimed German manufacturers such as Anschütz, Lothar Walther, or other quality gun barrel manufacturers.

Silencers or 'sound moderators' to give them their more accurate term, are of such importance that they'll be dealt with more fully in the chapter on Accessories, but at this stage it is worth mentioning that most serious hunters feel they're essential in attaining optimum results in the field. On a pre-charged pneumatic they are certainly a necessity, as the muzzle report from an untamed PCP is heard as a loud, sharp crack. On certain springers, the report can be quite acceptable but on the whole I would say that if you want to hunt to the optimum level then give serious consideration to the silencer already fitted to the rifle, or that which you will choose to add later.

Now to a much discussed aspect of any rifle; its trigger mechanism. The modern air rifle, even a basic model, is generally now fitted with a two-stage adjustable trigger unit. The 'two-stage' term refers to the fact that the length of travel in the first stage can be adjusted, or the length and weight of the second stage – i.e. the 'pull' or point at which the trigger trips the sear – can be altered, or both. Remember back to Chapter 1? As they come from the factory and set by the manufacturer, most triggers will tend to suit the majority of shooters, but as you come to know your gun, you'll probably want to tweak the trigger slightly to adjust its let-off. Be sensible with adjustments, read the manual that comes with the rifle thoroughly, and don't set the trigger pressure too light. Hair triggers aren't necessary or useful for a sporting air rifle, and very few hunters would advise or consider using them. Again, as for many alterations that can be done to a rifle; if in doubt get a reputable gunsmith to do the alterations.

The majority of trigger units also have a safety-catch system, either manual or automatic. These are useful because the rifle can be cocked and loaded with a pellet, ready to go, but the trigger is made safe by the safety mechanism blocking its action. However, nothing is safer than an uncocked, unloaded rifle. If you can hunt in this fashion, all the better, but there are many times when you'll need to be ready to take a shot quickly, which is best done with a cocked and loaded rifle with the safety engaged. Also, some springers can be uncocked by holding the barrel or under-lever, removing the safety, and pulling the trigger while allowing the barrel or under-lever to return under your manual control to its original position. But remember you've still got a pellet in the breech – assuming you got as far as loading. There is more to a safety catch than using it as an on/off switch, and it's up to the individual to learn to use the safety wisely, as an essential part of good, sensible gun handling.

For scope mounting, the rifle will have dovetails (and perhaps arrestor stud holes) machined atop the cylinder or action block to help prevent scope creep. This has already been mentioned, and you should check that the dovetails are well machined and are of a reasonable length to allow for a suitable scope mounting position. A new trend is, certain air rifles are even now fitted with a raised dual Weaver/dovetail rail for traditional scope mounting or to be scoped up in mounts with a Weaver base.



An adjustable butt pad can help with shoulder fit



Larger cocking bolt handles make cycling the action far easier



A retrofit trigger blade with shoe makes a lot of difference to how the rifle releases the shot



A standard screw cut muzzle accepts a wide variety of silencers



A retrofit adjustable barrel band can help the rifle be more accurate



For weight saving you might want to choose a profiled stock option

Be that as it may, but team a general purpose hunting rifle with a general specification 3 – 9 X 40 or better still a ‘new era’ 4 – 12 X 44 or 4 – 12 X 50 scope and you’ll undoubtedly have a very efficient, user-friendly, all-purpose, knockabout hunting rifle. If it’s a carbine, I’d advise a compact scope of 1.5 – 5 X 20 or 2 – 7 X 32AO, the latter being a scope specification that increasingly impresses me. An original Tasco in this specification is still one that has those in the know look longingly, as does the Simmons 1.5 – 5 X 20 Compact Nightview. Either of these optics will aid fast target acquisition, making this combo suitable for snap-shooting, as well as having the capability to take shots up to and beyond medium range.

But back to the air rifle itself as by now you could well be walking out of the shop with a springer, gas-ram or even a single-shot PCP with a general-type hunting scope on board, but if you want a bit more versatility, read on.

Precision Hunter

Here the options available are innumerable. Do you stay with a single-shot or go for a multi-shot model? Do you stay with the ‘mechanical animals’ or go pre-charged? It’s largely up to personal preference, but

personally, I wouldn't consider hunting now without my multi-shot PCP unless it was punishable by law. Admittedly, I do occasionally have a wander around my shoot with a single-shot, but this seems to be getting less frequent by the season. Even so, my first choice would always be a PCP, apart from in the harshest, most grime-ridden conditions where the danger of dirt creeping near, or into, the precious inlet valve and internals would have me reaching for a spring or gas-ram-powered rifle. So what do we look for in a precision hunter rifle?

If you've served your time with the spring gun, moving up to a PCP can be a bit daunting. These days there are both single-shot and multi-shot pneumatics to suit every shooter's requirements and pocket. There are many field-proven PCPs specifically designed for the hunter, and I'll try to help you through the quagmire by outlining what a hunting PCP should have in order to warrant serious consideration.

For airgun hunters new to the PCP, the simplicity of a one-shot capacity rifle is a valid reason to stay single. Also, let's not forget that before the multi-shots took over we did very well with single-shot air rifles. In fact, hunting with an air rifle should be a one-shot affair, and there are now a host of top quality, very reasonably priced, one-shot potters on the market.

Air Arms, BSA, FX Airguns and a few other manufacturers all have rifles that are very appealing, but we can't talk about single-shot PCPs without immediately thinking of the company mentioned at the outset, and often hailed as the founding fathers – Daystate Ltd.

Market demands have dictated that even the one-time kings of the one-shot now mainly produce multi-shot rifles that are capable of being adapted back to shoot in single-shot mode. There is a definite new trend for rifles to have the facility to be altered to function as single-shot, by conversion from the multi-shot models they're based on. For the present, there's a good selection of well-priced, dedicated single-shot PCPs for those who prefer a one-shot hunting rig.

The choice of a single-shot is the simplest to make. Look for ease of operation for loading the pellet into the breech or loading channel. There's nothing worse than trying to load a pellet into a fiddly loading area, especially with cold or gloved fingers. Also take into consideration the number of shots you get per charge or fill. You'll get more from a

standard-length rifle than from a carbine-size PCP; but other than that, all the features previously outlined for you to consider when choosing the basic all-round springer also apply here. It's when we get to multi-shots options that you need to weigh up a few major features that will sway you one way or the other, once again depending largely on personal preference.

Bolted

One key area of a multi-shot PCP air rifle is the action that cocks the rifle, indexes the magazine around and then takes a pellet from the magazine to load it into the breech. The other, of course, is the magazine, its type and its pellet capacity. For these two features to function there are two or three other mechanical aspects to the rifle. Besides the cocking bolt or side-lever handle there's the magazine indexing system and also the pellet probe. The cocking bolt always cocks the rifle (except on Daystate electronic PCPs, I must stress), but on its rearward travel it can also contact a lever that cams the magazine around to align a pellet with the breech. Often the bolt is also responsible for pushing or 'probing' the pellet forwards from the magazine and into the breech, in position for firing.



Side-lever action PCP's are now becoming more commonplace

The actual layout of the mechanical parts depends largely on the type of magazine – spring-loaded, removable rotary, or of a linear design. These were explained in Chapter 1. A matter of personal choice is the cocking bolt position and this will be either what is known as a ‘short throw’, side-positioned bolt action or else a cocking bolt mounted on the rear of the action block. Generally, a rear-mounted bolt action will have a longer stroke, while side-bolt actions are usually the slickest and quickest to operate, which is one of the reasons they’re termed ‘short throw’. If you do a lot of shooting in the prone position, either freehand or from a bipod, rifles with side-positioned bolt actions are often easier and more comfortable to use. To be comprehensive, I must also mention an increasing number of PCP multi-shot air rifles use a pivoting ‘side-lever’ for cocking and cycling the action. These are an option if you prefer them, and mostly have been developed to the point where they operate as efficiently as any bolt action design.

Now, are there any other major considerations? Obviously the price will be a deciding factor, as will the choice of a fixed air reservoir design

or a buddy bottle. Again, these decisions depend on the individual's circumstances and preferences.

All Together - When Put Together

Once known as the 'poacher's gun', the take-down rifle first made its debut on the airgun scene when the Colchester Gamekeeper PCP was launched over twenty years ago. Back then it was very much seen as an oddity. Since then there have been many more take-down rifles produced and the shooting public vote with their cash as they buy them. Even today's take-down air rifles will be used by some for illegal activity but used as they should, they're an air rifle that offers true benefits for the pest controller and sport shooter alike.

A take-down is very useful when you need to be discreet such as when carrying your air rifle to an area you're allowed to shoot. A few places I shoot have long footpaths that are the only route to a hotspot for quarry and the ease of carrying the rifle in a bag that looks like a rucksack or briefcase and to wear clothing more associated with a Rambler can be a huge asset.

I can climb over stiles on clearly marked footpaths, disappear on to the land to open the case and have the rifle assembled in less than a minute, and after not much longer be fully camo'd up myself. In some instances, you'll need another bag for your clothing but for my favourite take-down, the Air Arms S410 TDR, such is the generous nature of the bag that I can fit in a camo over-suit, face veil, gloves and cap or sometimes a camo net.



A take-down air rifle can be discreetly carried over public land and then onto the shoot

Without doubt, second to the TDR was the once discontinued and now resurrected Brocock Enigma, but I'd opt for the FX Verminator Mk II. It's a big shot-count, mini-carbine, which is highly and deadly accurate. For reasons of transportation the usual way the takedown breaks down is into three major component parts. The butt section of the stock can be removed from the action and barrel, and if there's one supplied, so can the silencer. It's worth stating here that for reasons of legality all

reputable air rifle manufacturers now build these types of air rifle, so when the rear section is removed the air rifle is inoperable or doesn't stray over the 6ft lb legal air pistol limit. The reason obviously being that once the butt section is removed in some cases, you have a long-barrel air pistol. Then again, such is the design of those that employ a buddy bottle for the butt section, when removed you quite frankly have no power! This simplicity shouldn't deter any shooter considering them as a serious hunting tool because once 'all together, put together', most are as accurate, handle as well and are as reliable as any standard, equal quality, full power production, full-bodied, PCP air rifle. For ease of use, it's good to see most supply cases for these rifles allow you to leave the scope in place, so there's no hassle having to keep setting zero. Even so, when you've assembled the rifle it only takes a few minutes to check it. Incidentally, as the majority of these rifles are aimed at the hunting sector, then they're mostly multi-shots. The reasons to use and own one are obvious and that's why I stated earlier that every airgun hunter should consider acquiring such a rifle. It may only get used on an irregular basis, but in my experience, at some point it'll pay its way in the amount of permissions you get to add to your list of places to shoot. That, in itself, is reason enough to own one – don't you agree?



Once on the land, the rifle can be fully assembled and out hunting in next to no time

What now follows is a guide list, to show how combos can be matched and the hunting situations to which they're most suited. Incidentally, it's worth noting that when it comes to matching size of scope to rifle, certain carbine size rifles can easily look and actually be what is known as 'over-scoped.' A rifle looks over-scoped if the optic onboard tends to overpower the rifle it sits on in terms of weight, length and in some cases, having too many features. At worst, this can affect handling but by and large compact to medium general specification optics suit carbine size rifles, whilst general specification to high-end scopes suit full-length sporters. Even then, choose wisely and you'll get far more from your combo.

Recommended Combos, The Alternatives and Usage

Single-shot, spring-powered rifle with open sights or single-shot PCP with red-dot.

Rat shooting, feral pigeon shooting. Mostly used for indoor shooting and around the farmyard and feed pens. Good quality makes medium-range, general purpose shooting a possibility, but I'd recommend a scoped rifle as follows.

Single-shot spring, gas-ram or PCP air rifle with general specification scope or slightly higher.

(See chart in previous chapter for scope choice.) The true all-rounder. This should be a full-power, one-shot potter. Good for most scenarios from shooting rabbits to shooting pigeons.

Multi-shot (including two-shot PCP air rifle option), with a higher specification optic such as a low-light scope - possibly even with higher magnification range and parallax adjustment.

This is suitable for everything, and the hunter with this is spoiled. For closer range shooting you require fast target acquisition, so look to a lower magnification scope. Again, see the scope chart in previous chapter.

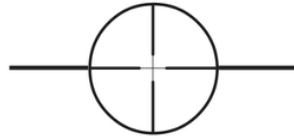
A Threesome ...

At the very beginning of this chapter I suggested that, ideally, airgun hunters should have three combos and though I recommend a few more, I still stick to the basic three in 12ft lb as a minimum. I'm asked so often about what to buy and why, and if you pinned me down and said I could only keep three rifles, I'd most probably choose the following:

- A springer or gas-ram, preferably with open sights and in .22 calibre. Depending on hunting situation, with either a compact or general spec scope fitted.
- A multi-shot .177 calibre PCP carbine with a compact scope or similar optic, with the choice of scope based on hunting opportunities likely to be encountered.
- Last but definitely not least, a multi-shot .177 calibre PCP with a Night Vision Riflescope.

If I'm travelling to another person's shoot as a guest, those three rifles are more often than not exactly what I'd take from the gun rack. Additionally, I'd not forget a selection of camo clothing, charging gear,

spare pre-filled buddy bottles, a lamping kit, a plentiful supply of ammo – in fact all my other usual hunting accessories we'll eventually be looking at and why they're, in my opinion, 'Necessities not just Accessories.'



4

Ammo

Pellet Calibres and General Information

I think it's long overdue that we dispelled the old airgun shooting adage that says .177 for feather and .22 for fur. As a general rule of thumb that was once quite a good guide to choosing which pellet to use, but with the advances in airgun technology and the quality of pellets on offer an increasing number of hunters now recognise that the choice of hunting calibres isn't so cut and dried.

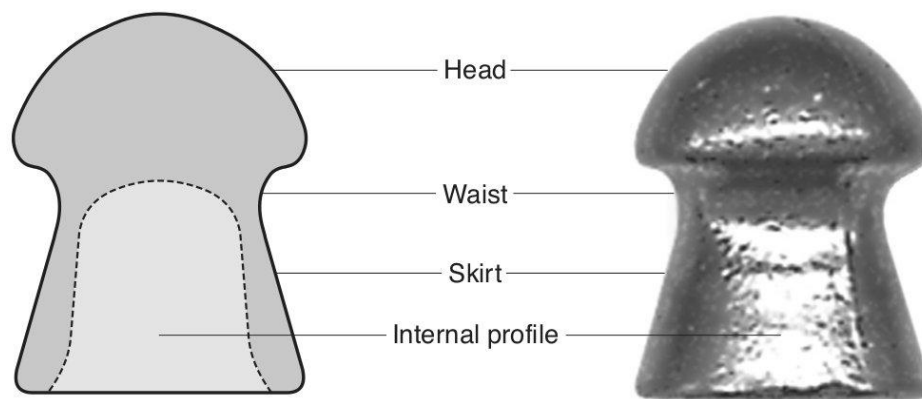
There are actually four calibres in all, because there are also the .20 and .25 to take into account, with each calibre having its devotees and its specialised uses. I personally feel that the popularity of .22 as a hunting calibre is largely due to the long held misconception that maximum power transfer on impact at the target is the major requisite for successful shooting. This is only partly true and we need to consider other factors – not the least being that the pellet must hit accurately within the kill-zone, no matter what the calibre. I mention this now, because a lot of what follows in this section can be considered quite radical when compared to the beliefs that have long been regarded as written in stone.

Any calibre of pellet hitting a kill-zone on the quarry will do the job of cleanly dispatching it, always assuming that striking energy is adequate. The .177 calibre pellet, because of its faster flight, flatter trajectory and some other characteristics which we'll examine later in this chapter, is usually more forgiving of slight range estimation misjudgements, and therefore more likely to be accurate. Yet it must be acknowledged that if a .177 is slightly off the kill-zone, it could well only wound the animal because it hasn't got the shock effect of the larger, heavier calibres. Be slightly off the mark with a .22 pellet and its heavier

weight combined with a larger frontal area will still deliver a lot of energy (i.e. shock power), which means it could still result in a clean kill. This is especially the case with a head shot on a rabbit.

What we learn from this is that accuracy is the prime factor for the clean dispatching of any quarry species, but the delivery of lethal energy is still very significant. Knowledge of the quarry's anatomy and the various all-important lethal areas where one shot will be fatal are fully dealt with elsewhere in this book – along with recommended calibre options – when we look at each quarry species individually. But first let's look at the airgun pellet, its function and general design, including shapes and types available

Anatomy of an Airgun Pellet



The airgun pellet is quite a simple but clever and practical design, with four main features – the head, waist, skirt and internal profile. Each performs a specific and important function and, along with quality of manufacture, it's the pattern of these in relation to the pellet as a whole that dictates performance and efficiency. Pellets are manufactured from lead or lead alloy. It's been this way for years because lead is reasonably cheap, easy to work, and heavy enough to supply the weight needed to transfer the energy of in-flight velocity (kinetic energy) into weight/mass energy at the target. The softness of lead also helps to deliver energy to the target as the material expands on impact. To be thorough, I must mention that there are also pellets manufactured from zinc alloy, tin alloy and even copper. As to their 'benefits' I'll not comment other than to say that until I'm convinced otherwise – I'm sticking with lead!

Main Pellet Design Features

Head

The head is vitally important, as this is the part of the pellet that transfers the speed (velocity) and weight (mass) of the pellet into what is known as ‘shock’ or ‘shock effect’ when it hits the target. The shape of the head also helps (or sometimes hinders) the aerodynamics of the pellet, which should have a straight and accurate flight.

Waist

Pellets are waisted (i.e. pinched in to a smaller diameter roughly midway between the head and the skirt) partly to reduce the weight-to-length ratio, but more importantly to reduce friction in the barrel while separating the head and skirt sections, thereby allowing them to function as they should. The head should stay true aerodynamically in flight to the target, while the skirt expands on catching the first blast of air from the transfer port, and fills the bore. The waist acts as a hinge, so the skirt can expand to meet and engage with the rifling in the bore of the barrel.

Skirt

This is designed to catch the blast of air on firing and to expand, making an airtight seal behind the pellet in the barrel. This is the only part of the pellet that is in full contact with the bore, picking up spin from the rifling to aid accuracy. This is one reason why the skirt should be checked for deformation. It must be perfectly circular and even-edged to make a proper seal, and to engage correctly with the rifling along the full length of the bore until the vitally important last millisecond as it exits at the muzzle crown.



Time we dispelled the old airgun shooting adage of .177 for feather .22 for fur

Internal Profile

This is the hollowed-out section at the rear of the skirt and inside it, which is designed to catch as much air as possible, thus expanding the skirt. When checking the pellet skirt for deformity it's also worth looking into this hollow section to guard against an irregular profile, which is

usually caused by the skirt walls being uneven in thickness. Heavier pellets usually have less ‘hollow’ in relation to the overall size, due to the fact that more lead is used in their construction, which usually means that there’s a thicker skirt and a more solid head. These pellets are usually designed for high-powered, FAC-rated air rifles, as they stand up better to the rigours of being blasted along the rifle’s bore at much higher velocity.

Pellet Shape and Size

In the distant past, we had a valid excuse for not paying particular attention to our ammo, or ‘slugs’ as they were and still are affectionately known, as pellet choice was fairly limited.

However, there’s now a myriad different configurations of pellets in all popular calibres, so even when you’ve chosen your combo and calibre of air rifle you’re still faced with which type or shape of pellet to use. Fortunately, top-quality ammo is now readily available in all the main pellet designs to suit all shooting disciplines – especially hunting.

Pellet weight is given in what is known as ‘grains’, denoted by a ‘g’ or ‘gr’ after the numerical unit size – e.g. 20g or 20gr – and there are 3000 grains to the pound. The importance of weight in relation to pellet size is more relevant to rifles with FAC-power ratings, so it needn’t concern us for the moment. More important is choosing the right pellet to suit your particular 12ft lb hunting combo.

Every airgunner should be aware that every now and then a manufacturer might come up with a new pellet type which they guarantee has better flight characteristics or power transference figures. These are intended to impress us into buying and trying them, but they are usually little more than products made for the sake of grabbing your cash. Oddly-shaped pellets invariably perform oddly!

Here are the main pellet shapes, and their principal features.

Round or Domehead

The most popular type of pellet is still the round-shaped or ‘domeheaded’ pellet, so named because the head has a rounded dome shape! It has all the characteristics a pellet needs and no more. All major pellet

manufacturers will have at least one domehead pellet brand in their range. They may have ribbed skirts, long skirts or whatever, but they'll all still have a rounded head. From this design we've had what can be termed 'hybrids', pellets that have pear-drop shaped heads which are slightly pointed but still smoothly rounded rather than finishing with a true conical point. All stem from the good old basic roundhead design. The only true design feature that can be altered on these pellets is the sizing of the head itself, and the length and angle of skirt. To some extent the latter applies to other pellet shapes as well, but whatever the case, so long as the head is uniform and round in profile this will most certainly be the optimum choice for the hunter. The roundhead is the most accurate lead pellet design for any distance, from close-range through to long-range shooting. That is why FT shooters use nothing else but these types of pellet. Later on, more will be revealed as to why the roundhead is the optimum shape for an airgun pellet in terms of efficiency.

Hollow-Point

This terminology has been heard many times in cop films. 'The shooter used a hollow-point or dum-dum bullet.' I know I used the term 'bullet', but it's still a projectile, and the term 'hollow-point' fills us with images of a bullet that expands massively on impact, doing maximum damage to the target. In powder-propelled firearms ammunition that's very much the case, mainly because it's travelling so fast. Whether it's a live firearm cartridge or an inert lead projectile, the term 'hollow-point' refers to the fact that the projectile has a hollow or recess in the tip of the head, rather like a dimple. This encourages the head of the projectile (the pellet) to expand on impact. Whilst hollow point pellets will do this to some extent, they're not travelling with enough force to give the hunter using them any marked benefit. Although reasonably efficient at close- to medium-range, as hunting pellets they can become slightly unstable in flight over longer ranges. If using them, keep the range comfortably within 30yds and then it should only be your quarry that has any cause for concern.

Pointed

There's a long-held belief that a pointed pellet gives maximum penetration and is therefore the best option for hunting. Thankfully, this

is now accepted by most thinking airgun hunters as untrue, despite which many pointed pellets are still sold to those who cling to this questionable belief. In fact, penetration as a benefit for hunting ammo is somewhat of a misnomer, because if you fire any pellet into a substance such as Plasticine from a 12ft lb rifle at 25yds, penetration won't vary greatly, regardless of the shape of the projectile.

Apart from that, the pointed pellet's design is also quite unsuitable for it to be accurate even over moderate ranges. It has poor flight characteristics and damages easily on transportation, and even on handling whilst loading. To work properly, the point of the pellet would need to be exactly coincidental with the centre line axis of the pellet skirt and the mass of the pellet. To manufacture such a pellet would be either ridiculously expensive or almost impossible.

Wadcutter

Sometimes known as the 'flat-head', it'll come as no surprise that this pellet has a head with a flat profile. The theory behind its being useful to the hunter is that the flat frontal surface should transfer maximum energy on impact with the quarry. It probably does so at close range, but it starts running out of velocity as it pushes against the resistance of the air in flight, and it can become unstable even at medium ranges. This pellet is great for 10-metre match shooters, as it is designed to punch neat holes in paper targets; but for hunting I'd recommend you give it a wide berth.

Does Size Matter?

Despite all the discussion and arguments that have occurred over pellet choice, there are still the main two to be considered – the .177 and .22 calibres. Whilst the world has mostly gone metric, we still know these pellets by their imperial increments (.177 inch and .22 inch), although their metric equivalents are 4.5mm and 5.5mm respectively. However, certain manufacturers supply these calibres in slightly larger width increments. A slightly larger pellet in the same nominal calibre, which may be only 0.1mm larger than the recognised standard, could well sit more snugly in the barrel of your particular rifle and be more efficient as it travels down the bore – i.e. shoot more accurately. This is when it really pays to experiment with various pellets to find which best suits

your particular rifle. (Shooters using full-blown bullet-firing rifles find the same thing.)

The other, less widely known and used calibres, while they have their followers, do have particular characteristics that give them specific yet limited appeals, and they are therefore worthy of further investigation. The .20 calibre (5mm) pellet is often termed ‘the compromise calibre’ and because of all the arguments this causes it could be better termed ‘the controversial calibre’. In the UK it’s by far the least popular, but is much used and respected by our American cousins. It must be noted that the range of pellet choices for the .20 is limited, and therefore, in effect, it is a self-limiting calibre option. Theoretically, due to its size, you’d think you’d get the compromise of benefits – i.e. that it’d have a flatter trajectory than a .22 calibre, but hit harder than a .177. While on paper this is true, most .20 calibre pellets weigh much the same as their .22 calibre relatives, so by and large you don’t gain very much. However, shooters who are seduced by this calibre can be almost fanatical in their devotion to it, especially if shooting at FAC-power levels. I can’t help but feel that there is some flawed psychology in this devotion. It obviously looks bigger than a .177 and feels heavier, but, as it looks smaller than a .22, then it must be a compromise between the two. You’ll note by the trajectory graph which follows that it does have some benefits, not the least of which is a flatter trajectory. But in practical situations facing the hunter shooting at sensible ranges, does wind and gravity have that much less effect on a pellet because it’s 0.5mm less in diameter? I’m not convinced that it has these supposed, almost magical ballistic qualities and don’t think I ever will be, but they do say, ‘never say never’, don’t they? They also say that having confidence in your rifle/scope/ammo combo has a lot to do with your performance, and I wholeheartedly agree with that.

Now to the ‘big slug’ – the .25in (6.3mm) calibre. This brute has been around for as long as airguns themselves, but whilst at one time it revelled in a certain amount of infamy for its sledgehammer hit, it has by and large fallen out of favour with shooters, gun manufacturers and suppliers of good-quality ammo. The trouble is that, like the .20 calibre, it does have its devotees in the specialised uses it supposedly caters for, which are close-range rat and feral pigeon, pest control shooting. It does

transmit a lot of stopping power with little or no possibility of over-penetration, thus reducing the danger of ricochets and potential damage to buildings, but at the cost of having a very pronounced trajectory curve. This is a most specialised calibre, possibly only worth considering by those who shoot regularly at close-range with a 12ft lb rifle, or the FAC-power shooter wanting extra clout, and provided you can cope with a trajectory like a horseshoe! I'm half joking, but you'll come to realise the validity of that last statement in the section devoted to FAC-rated air rifles.

Ballistics

Let's look now at the physics and facts pertaining to a lead projectile fired at a given muzzle velocity – in this case enough to produce 12ft lbs of pellet muzzle energy – which should be considered by the hunter in relation to the all-important kill-zone on his quarry.

First, it really does come down to physics, or in this case the specific branch of physics known as ballistics, and in particular to the velocity (speed) the pellet is travelling at, in relation to its mass (weight). This in its most basic form is an explanation of how energy is transmitted or delivered to the target. The delivery of energy to the target is often termed 'shock effect' or (a term I tend to use to a lesser extent) trauma. More specifically, for a head shot, an animal or bird will die of the equivalent of what is known in human terms as 'blunt force trauma'. 'Heart failure' is a more appropriate term for when a pellet has hit any other vital organ. It's worth looking further into this because, in essence, you have four areas where vital organs are found that can be termed as kill-zones. In certain species, and due to their position in the body and the quarry's visible profile in relation to your shooting position, these can be so small they're of little use for placing the pellet, but worth mentioning nonetheless. These are the brain (skull), central nervous system (back or side of neck) heart (chest cavity) and lungs (chest cavity, and found on either side of the breast bone of a bird).



The four basic pellet types – but even these have variations

For pellet placement you're now reduced to three major areas on the quarry's body, and then only in relation to how it presents itself to you in your shooting position. These are head, neck and chest. All are dealt with in more detail in the relevant sections on the individual quarry species, but it's worth keeping the headshot at the forefront of your mind, as this is the most important of the aiming points. Deliver your hunting shots with precision into the 'napper' and you're aiming right and killing cleanly.

In considering ballistics, the smaller .177 calibre pellet delivers its shock effect mainly through its speed (velocity). Due to its smaller mass it travels faster than a larger .22 pellet fired at the same muzzle energy (ft lbs). It also retains velocity over a longer range. However, the fact that it travels so fast and is quite small has given rise to criticisms of its tendency to produce over-penetration at the target, and at medium-range this can result in the pellet passing right through the target. But a .22 calibre pellet fired at medium-range can in fact pretty much duplicate this effect of over-penetration. This is doubly confusing when you consider that a larger pellet delivers more shock value due to its larger mass, but as its velocity is slower there's less likelihood of it over-penetrating at longer distances.

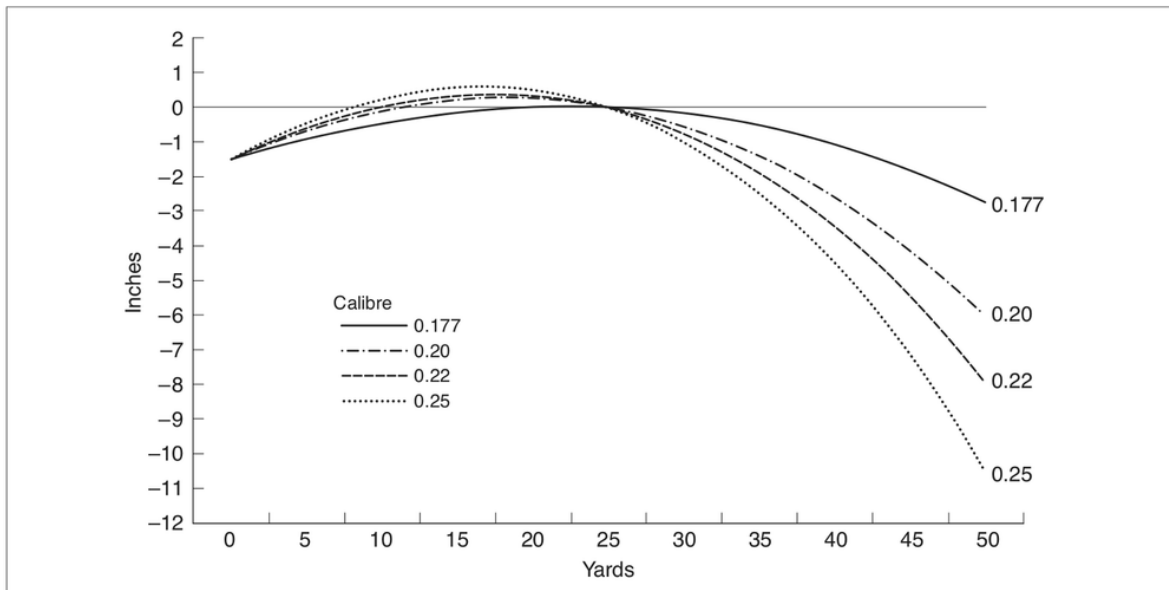
But consider this. While a medium-weight .177 pellet of say 7.9g will fly faster than a heavier-weight pellet of the same calibre, the heavier pellet penetrates further into the target at the same distance. This is due to the pellet's extra weight or, better put, extra mass slamming into the target, and here's a very interesting twist: a faster .177 pellet actually penetrates less than a heavier, larger .22 calibre pellet, and that's with both projectiles fired at the same muzzle energy. This is because a heavier pellet has a better ballistic coefficient, and retains greater downrange energy. Before leaving this topic it's worth noting that, irrespective of calibre, medium-weight domehead pellets – percentage wise – retain almost the same impact energy and virtually the same velocity at 30yds as their heavyweight counterparts. This further supports the fact that weight or mass of pellet has a strong bearing on penetration at the target at this range, and helps explain why the round-head design is still the top dog for a hunting pellet.

What should we make of all this? Initially it would seem that the .22 calibre pellet is the better choice for hunting, because the facts and figures of penetration, velocity and energy retention all look good on paper. Computer chronograph read-outs of velocities, and ballistic putty or other such media used to illustrate the penetration of pellets, can only give you the base, theoretical guidelines. These are test results in controlled conditions, and not what you can expect to be exactly replicated on flesh and bone in the hunting field, which will be discussed later. Also, as mentioned before, shock or trauma is only part of the killing equation. If you hit the mark with a .177 pellet with sufficient energy, the fact you've hit the vital organ means a cleanly dispatched target. Indeed, anybody who hunts regularly with a .177 can't fail to notice how much bloodier the killing wound often is. The reason for this is that the .177 pellet will sever everything it slices into and cause a lot of internal damage to blood vessels, tissue, organs and arteries. Who says it isn't an efficient hunting calibre? It should therefore now be apparent that getting the pellet accurately to the target has priority over the size of that pellet. This brings us neatly to the facts surrounding trajectory in relation to size of calibre and weight of pellets.

Trajectory

When a pellet is fired from an air rifle, irrespective of calibre, it follows a curved path in flight, known as the trajectory. Incidentally, trajectory applies to the path taken by any object in flight fired under a given pressure. The chart/graph that follows clearly illustrates flight path characteristics of all four pellet sizes.

Trajectory Chart



You'll notice the .177 calibre has the flattest trajectory, whilst the large .25 has the most pronounced. Of course, a heavy .177 pellet will have a more pronounced trajectory than a standard or lighter pellet of the same calibre, and this principle obviously applies to all heavier pellets, irrespective of calibre. So why mention it here? If a heavier, small calibre pellet is used, more shock effect is created due to its having a larger mass. By and large heavier pellets are designed for higher power-rated rifles, or FAC-rated air rifles as they're known. I don't want to linger unduly on the smaller calibre, but it does give food for thought that a slightly heavier .177 calibre pellet fired at 12ft lbs can be a much better proposition for the hunter, affording more heft on impact, a flatter trajectory, and better stability in flight than a lighter .22 calibre pellet. Heavyweight .22 calibre pellets are very much the choice for FAC rifles,

as not only do they transfer much more stopping power but are less likely to lose shape and deform as a result of the higher pressures involved in firing. Interestingly, in general, heavyweight pellets are more suited for all benefits that they afford the shooter when fired using a PCP, whereas light to medium weights work more efficiently when fired from a spring- or gas-ram-powered air rifle.

Earlier I touched on ballistic tests – i.e. pellets being fired into a block of Plasticine or ballistic putty. The block is then cut in two to show the path taken as the pellet enters the material and slows to a stop inside it. Whilst these make for interesting study, again note that these results should still be looked upon as guidelines as to what actually happens when a pellet impacts on a live animal. Remember that a layer of fat and an outer protection of feather or fur, depending on the quarry, is added to the flesh and bone surrounding the kill-zone. These aren't uniform substances like the material used in the laboratory tests you often see. If you really want to know how a pellet performs when impacting on the quarry kill-zone, then on retrieving the kill, cut out the pellet. Distasteful as it may seem, it's a good idea to examine the wound externally and internally. Look at how the pellet has distorted on impact. Again – and this is borne out by many years of hunting – if you retrieve a pellet from your quarry, especially a bird, then more often than not the pellet will have changed very little in shape unless it has hit or smashed through bone. Internally, the wound will show extensive tissue damage leading to blood loss. But one thing is for certain and that is, whatever calibre and pellet type you choose for your hunting combo, stick with it and learn its trajectory so you are able to make the required adjustments in aim for all distances. This is known as allowing 'holdunder' or 'holdover' at the target, and even though we touch on it here, the practicalities are looked at in much more detail in the following chapter pertaining to range estimation and evaluation.

When considering the physics of pellets in flight, look again at the trajectory chart and notice how the pellets share a common factor, in that they all leave the muzzle well below the set zero before arcing upwards and descending to the zero point – predetermined by the shooter – and then drop (fall away) the further they get from the zero distance. The pellet exits the muzzle below the horizontal line of the scope due to the

simple and obvious fact that the barrel is set below the fixed aiming axis given by the scope mounted above the rifle's barrel. So, in effect, you have two predetermined zero points for a pellet fired over any distance – one close to the rifle's muzzle and the other at the set zero. These are determined not only by the main zero set by the shooter, but by variables such as scope height, pellet calibre, muzzle velocity and pellet weight.

To simplify this, a medium-weight .22 calibre pellet fired at approximately 12ft lbs and zeroed at 25yds crosses through the horizontal line of aim (the 'first zero') at approximately 10–12 yards, and then drops into the set zero of 25 yards before progressively falling off until it hits the ground due to loss of momentum – or, more correctly, loss of velocity. This very basic explanation serves to illustrate why you need to allow for what is known as holdunder (shooting lower) the closer the target is from the set zero, and allow for holdover (shooting higher) the further from your set zero the target is. As you can see, less adjustment is needed for the smaller, flatter-shooting .177 calibre. This is one of the main reasons why the smallest calibre is so popular with FT shooters, and also why it is now becoming increasingly popular with hunters. Indeed, I'll stick my neck out and say that this has only become more established by hunters as PCPs have become more accepted and used as hunting tools. The reason is that the recoilless attributes of a PCP air rifle give a much increased accuracy potential; therefore longer-range shots are taken more often than they were formerly. Once again, it seems we can learn a lot from the target boys.



Smackdown! Any calibre pellet placed with precision will do its deadly duty

Unfortunately, if the .177 has a downside it's the fact it can be affected by wind, particularly a heavy crosswind. A larger, heavier pellet does tend to fly more true, but this doesn't mean the .177 pellet gets blown around like confetti. Besides, how often do you hunt at long range in breezy conditions? You shouldn't need or want to, so in that respect I personally find nothing to condemn the smaller calibre.

The trajectory chart only applies to a shot fired along the horizontal plane in ideal conditions. When we come to shooting at upward or downward angles in the field other nuances have to be reckoned with and allowed for. Many hunters find that when shooting at awkward angles, rangefinding and pellet placement can go sorely out of the window. This will be dealt with in the following chapter – because, at times, air rifle hunting ain't easy!

Power Checker

A common misconception is that if the air rifle is more powerful then it will be more efficient at dispatching quarry. Wrong! You're now aware that accuracy at the target is the vital factor. I've often made mention of 12ft lbs being the legal limit for 'off ticket' (i.e. no FAC required) air rifles, and in the main hunting rifles should be running fairly close to the 12ft lb legal limit. But it's the responsibility of every airgun hunter who does not possess an FAC that his air rifle doesn't exceed that limit. A responsible shooter should actually be thinking of running the rifle at around the 11.4–11.6ft lb mark with medium-weight ammo. This way, if heavier or lighter ammo is used, the power theoretically shouldn't rise above the current 12ft lb legal limit. Remember, should you be stopped by the police and your rifle checked for any reason, then the powers that be are allowed to test the rifle with any ammo they choose.

So – how to stay legal? At this point, readers should make a mental note to take their air rifle to the nearest specialist airgun shop and have it checked over their chronograph. This is an electronic gadget that can measure the speed of the pellet, and by using the correct formula it will give you the muzzle energy of the rifle in ft lbs. Muzzle energy can be calculated once you know the speed of the pellet in feet per second (f.p.s) and the pellet's weight. The formula is used like this. First, square the

speed of the pellet, then multiply it by the pellet's weight in grains, and then divide by what is known as the 'common factor' or 'gravitational constant' – a figure of 450240. This gives you that pellet's power in ft lbs. There are little chronographs that do the maths for you, and all you need do is punch in the weight and calibre of the pellet, shoot a few to gain an average velocity, and then read the figure off the digital readout. They don't cost the earth, and what's important is that they'll keep you on the right side of the law.

Pellet Preparation and Care

There's no use spending time on pellet preparation if your pellets aren't of a good standard to begin with. Thankfully, most of today's big brand name pellets have got the basics right. These mean good-quality lead used in manufacture, a consistent manufacturing quality control, good inspection processes and transportation and supply in suitable protective packaging to prevent pellet deformation.

As the company goes to all this trouble to get pellets in as good condition as possible to the consumer, it seems strange that many of us are still content to just empty a few into the pocket of a shooting jacket and set off for a session. Granted, airgun hunters have done this for aeons, so why shouldn't it continue? Well, it can – if reasonable results are all you desire, but if you want to achieve the finest accuracy and results you and your combo are capable of, then a little time taken preparing pellets can bring surprisingly fewer 'flyers' and save you from those infuriating, unexplained misses.

Don't get me wrong. I'm not suggesting you go to the lengths of the World Class standard FT boys, with washing, grading, weighing, sizing and lubricating. Yes, you can do all that; but just a few simpler procedures will save you much frustration in the field. First, tip your pellets out of the packaging onto a few sheets of clean brown, unwaxed wrapping paper or newspaper. Depending on the pellet brand, you'll probably be surprised at the amount of swarf (metal filings and small cuttings) that comes out with them. If the pellets have bits of swarf stuck in the skirts, you have no option than to wash them. A swirl around in a bowl of light soapy water, then rinsing and drying, will suffice. I know,

it's hassle, but it's worth the trouble, and if this is a regular occurrence – find another pellet brand.



Hopefully, all you need do is pick the pellets up one at a time, and while checking the skirt for damage blow out the very few bits that may be found. If you find a pellet with a deformed skirt, dispose of it. Also check that the head is undamaged and uniform. While checking this, ensure that the waist is central so the head and skirt are perfectly aligned on the horizontal. You could go as far as to buy a set of special scales, but you're going down a laborious road, and I've not felt the need to weigh top-quality pellets individually, so visual inspection is my main criterion for preparation. However, before returning them to the tin or box, a light spray with pellet lube is advisable. Allow them to dry naturally, and then carefully put them back in the box or tin.

At this point, I'd like to refer to the fact that some writers say they prefer to use single-shot rifles because they can inspect each pellet for every shot. This is a tad misleading. You can scrutinise each pellet just as closely while filling a multi-shot magazine as you can when loading them one at a time into the breech. The slight damage that may occur when a pellet is probed from a magazine is minimal and soon put to rights when the air blasts the pellet skirt outwards to make contact with the barrel bore. In other words, don't be misled into thinking that a one-shot rifle is the tool for total precision.

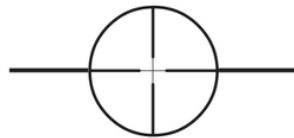
After taking all this care, a pellet pouch is a handy aid for carrying extra ammo on your shoot, and much better than just tipping a few into a

jacket pocket. If you insist on just pocketing them, then make sure the pocket is clear of dirt and grit, and never put anything else – such as compact binos – into the pocket with them. Also, use a pocket that you're not likely to lean against, so there's no possibility of pellets being crushed and therefore deformed before use.

To sum up all of this, especially pertaining to initial selection of a pellet brand, I'd say choose a roundhead pellet which through careful trial and testing, you find really suits your combo and then stick with it. Incidentally, you'll find most roundhead pellets look almost identical in profile, but in actuality they will differ, and you'll find some more suited to precision air rifles with tightly-choked barrels. Only by trial and error will you discover which is best suited to your particular rifle. However, as a general rule of thumb, German manufactured pellets are a tad larger than other European ones. The best brands will even have the exact sizing written on the tin in millimetres. In that respect you can see why it really does pay to try a varied selection of quality pellets to find the brand and type that best suits your rifle. Look for a brand known for its consistency in size and weight. They'll probably be more expensive, but that's because quality pellets are more expensive to produce.

As for buying tin-after-tin, or box-upon-box, of the same batch number, it can be worth your while doing this if you do find a batch that your rifle particularly likes. This is because pellets with the same batch numbers are made from the same die set. Just a little warning though – don't go buying the shop's whole stock of them as, if you don't shoot a hell of a lot pellets, they can oxidise if left for a lengthy period of time. No amount of cleaning can sort out badly pitted pellets, and most hunters don't want to buy 10,000 slugs at a time – or will you?

Take heed – don't chop and change ammo, and do check your rifle's zero regularly. While doing that, you also need to get down to some serious target practice to attain hunting accuracy.



5

Gun Handling, Sighting and Firing

Shooting Techniques Explained

Air rifle engineering technology has come along in leaps and bounds in a relatively short space of time. Suffice to say that a newcomer to the sport today can be spoiled, because many modern air rifles, and PCPs in particular, almost shoot themselves! They need only a guiding hand or two and an aiming eye to place the pellet exactly where it needs to go – the all-important kill-zone. But no matter how good the gear you might be fortunate enough to use, you still need to have grasped the basics of gun handling to make full, safe and proper use of the technology you're holding.

When hunting with a rifle of any description, the more we shoot the more we tend to take the basics for granted, yet it's the basics that can mean the difference between success and failure in the field. Many, like me, probably first began learning to shoot using a spring-powered air rifle; but then as we moved up through the ranks, eventually to shoot PCPs, it's all too easy to forget those first tentative shots we fired, and what a basic rifle they were fired with.

Let's get back to basics and look at the various elements of correct gun handling and, in turn, accurate and consistent shooting.

Although airgun hunters are bombarded by stories of successful shots at quarry at 50yds and beyond, it should always be remembered these are only achieved consistently by very experienced shooters, and only when conditions allow. Every hunter should only shoot within the limits of their personal skills and ability, and always show respect for quarry.

Another important factor the hunter should always remember is that they're taking part in a sport that requires a certain level of physical fitness and that level varies depending on the demands of the hunting techniques you're employing. You shouldn't or wouldn't want to go to the gym or go jogging, for instance, if you had a heavy cold or worse. So why go hunting when you're feeling under the weather. Granted, it may do you good to get out for a spot of fresh air, but it's better to go without your rifle. Take this as a prime opportunity to go out and observe. How you feel physically – and even mentally – will affect your performance in the field. Don't drag yourself out just for the sake of going, as you'll end up missing easy shots, getting frustrated and wishing you hadn't bothered. At worse, you may even have an accident! Instead, you could brush up your accuracy at home on targets – which brings me nicely to the subject of where to practise safely, and how to set up your own target range.

Home on the Range

If you're not a member of an established gun club or don't have access to a target range, then there's nothing for it but to build your own. This is known as a 'plinking' range, and as long as you have at least 25yds of clear, unobstructed, privately-owned space from the shooting position to a secure pellet stopping/catching backstop, then you're in business. The backstop is the most important part of the set-up, as it needs to be strong and secure enough to stop the pellet going through and beyond the property you own. If it isn't, you're not only shooting irresponsibly and illegally, but also inviting an accident to happen. For this reason it should be stressed that a backstop can never be too sturdy. Granted, in relation to a bullet fired from a cartridge-firing firearm, a pellet fired from a 12ft lb air rifle is very low-powered, but when pellets are continuously hitting in the same general area on even the thickest piece of wood, they will quickly start to wear a way through. This is why backstops not only need to be of a suitably strong construction but also checked periodically for damage. Many shooters use a couple of old, scrap doors with carpeting thrown over the front to help lessen the penetration of the pellet. The carpet not only helps reduce damage and prevent ricochets but also

absorbs the sound the pellet makes if it is allowed to impact continuously on bare wood.



Eye-relief and head position are vital for giving you an accurate full sight picture

My recommendation for a backstop is at least a double layer of solid wooden doors over which you can put at least two or three layers of carpet. Fire doors are perfect, as they're made from 1½-inch thick solid wood, and like other doors you'll find them on builders' skips when they're demolishing office buildings and the like. Keep your eyes open and don't be afraid to ask if you see doors being thrown out. More often than not, the previous owners will be glad to see the back of them, and if you remove them it means less rubbish for them to shift. A word to the wise concerning the carpet used: although you might think it best to pile umpteen amounts onto the doors it's actually better to use just two or three layers, and when these show signs of too much damage, replace them with fresh layers. This prevents an excessive amount of carpet becoming waterlogged and gungy, and therefore almost impossible to remove come the time to replace it. If you've a garage or large shed, you can store old, spare carpet, and never pass up the chance of an unwanted

door or two. I use my backstop so often that I've even built a wall of bricks and mortar that the doors lean against. This is approximately 6ft in height by 8ft wide and gives me total peace of mind because the pellets are never going to pass through to the neighbouring garden. Even so, I regularly check the condition of the carpet, the wooden doors and even the wall behind.

With a backstop sorted, what do you shoot at? Well, there are the obvious paper targets, which I mount onto heavy-duty metal bulldog clips hung on metal cup-hooks. A simple idea, but the clips make changing targets very easy. The same goes for reactive targets such as chalk discs. These are simply hung on small nails that I tack onto the backstop itself. Chalk disc targets give a satisfying feeling of achievement as they shatter on pellet impact, and they really do help keep you practising for longer periods. There are many other reactive targets readily available, such as spinners, and resettable fall-flats (knockovers or knockdowns).

Knockdown targets are nothing new, and have been the norm in FT competitions for almost as long as the sport itself. However, the size of the plate that needs to be hit to knock it over bears no relation in shape or position on the target to the kill-zone of the quarry it mimics. This is because the mechanics of design oblige the makers to position a circular hit-zone in the centre, rather than at the head, for optimum target operation efficiency. Other similar-principle targets, but more realistic to the hunter, are the kill-zone profile fall-flats from AirgunSport. These not only represent a true kill-zone but are in profile as well. The rabbit fall-flat consists of a profile of a rabbit's head, while the rat fall-flat shows the profile of the first third of the body. These are realistic target areas – especially the latter – as hitting the real thing here would result in a clean kill.

Whilst I use both knockdowns and fall-flats, it must be said that while your neighbours might put up with a dull thud of a pellet hitting a sound-deadening backstop, how tolerant would they be to the continuous 'ting' of an airgun pellet on metal? Even now, I prefer to use these targets by taking them along to any reasonably-sized field on one of my shoots, to practise in different shooting positions. This type of real-life practice will also be dealt with further in the chapter on Shooting at Night. Here you'll

really appreciate the ability to duplicate a hunting scenario under controlled conditions, but without targeting live quarry. It's much better for the hunter than continuously putting shot after shot down a range from a bench rest. Later in this book there'll be a clear description of setting out a field course to help you hone your rangefinding and accuracy. My garden range is mainly used for setting up my hunting rigs, and setting and checking zero. Again, it must be remembered that safety needs to be at the forefront of your mind at all times when preparing or actually shooting. Here are a few safety rules that all shooters should adhere to:

- Never leave a loaded rifle unattended. This applies to the private target range just as much as it does at a club or in the hunting field.
- Never point a gun at anything that you don't regard as a legitimate target – even if you believe the gun to be unloaded.
- When loading a break-barrel, under-lever or side-lever action rifle, always hold onto the barrel or lever while thumbing-in a pellet.
- Never dry-fire a spring or gas-ram-powered air rifle – i.e. cocking and firing without a pellet being loaded into the breech. It can cause extensive internal damage as the piston slams forward unbuffered by a pellet, as it should be pushing against one in its effort to propel it from the barrel.

Getting a Grip

Successful air rifle hunting is a combination of many factors, but correct gun handling – thus giving a consistent level of accuracy – is one of the most important. Then there's experience and fieldcraft – and even just good old common sense. Correct gun handling means what the term implies – how you handle, or hold, the rifle while you take a shot. This is all about consistency – i.e. holding the rifle in the same way for every shot. Correct, consistent handling is even more important when using recoiling rifles such as springers, as they have a definite firing cycle that is mechanically the same for every shot. What the shooter has to do is work with this cycle, rather than against it.

First let's deal with the way you hold the rifle. It shouldn't be held too tightly; rather, it should just be snugly supported or cradled by the shooter, allowing it to go through its firing cycle unrestrained. In other words, you need to let the rifle 'breathe'. The object is almost to work with the rifle, acting to give it stability while equally instructing it through your actions of steadily aiming it and ultimately guiding the pellet towards the target. Follow-through is also important, and this means keeping the gun in aim and on target after it is fired. This is very important because moving the rifle, even slightly, after squeezing off a shot will have pellets flying all over the place. Remember that even after you've slipped the trigger, the pellet is – for milliseconds – still travelling along the barrel, and thus still affected by your actions. Incidentally, follow-through is also needed for a recoilless PCP, as the lock time (the period between squeezing the trigger and the pellet leaving the muzzle) is usually longer than the lock time of a springer or gas-ram rifle.



Practice in the standing position as many times you'll need to take shots such as this

A problem that can affect any rifle is 'cant' or tilting. Once a rifle/scope combo has been zeroed for a particular range, if you hold the rifle differently, leaning to one side or another, even if the rifle is only slightly askew in your grip, the impact point of the pellet will be off the

original set zero. This is called ‘cant’, and can only be remedied by practice and consistency in your gun handling. You could fit a scope-mounted spirit level or an electronic level aid which visually helps you line up the rifle squarely on the target, shot after shot, but it’s far better to begin by learning correct gun handling without these aids. Another thing to remember is that you can’t rest a spring or gas-ram-powered rifle directly on a solid object while taking a shot. The rifle will literally bounce off as it goes through its firing cycle, with accuracy being badly affected as a result. You can, however, rest the rifle cushioned in your hand, which can then be rested on a solid object such as a branch, gate or fencepost.

Because many PCP air rifles use what are known as free-floating barrels, don’t make the mistake of resting the front of the barrel or the silencer on any solid object. If you need to, always rest it using the underside of the air reservoir, buddy bottle or preferably the underside of the stock. Resting a rifle on a free-floating barrel will have the weight of the air reservoir, or buddy bottle – and of course the stock – weighing down and therefore lifting the barrel upwards, badly affecting accuracy.

Another recommended support is to shoot in a seated position with your left knee pulled up towards your body with your arms forming a brace around you. The left hand should hold your upper right forearm so that the rifle can be rested over your forward arm. Of course, for left-handers the opposite applies. This is an established FT shooting style, but one the hunter can adopt when the opportunity arises. Unfortunately, it’s only of use if you’ve previously had time to take up an ambush position, but as long as you don’t have to stay put for hours it’s a surprisingly comfortable position to adopt.



Shots up at birds in trees are fraught with many variables – one being to ensure the pellet has a clear path to the target

A relaxed grip and steady follow-through are essential to consistent accuracy with a spring or gas-ram-powered air rifle, and also major considerations for shooting with any other type of air rifle. Whilst the following applies to most shooting positions, in the main they apply to shooting the rifle freehand, or from a standing position.

If you're using a spring-powered rifle it should be held firmly enough to keep the rifle on aim, rested in your hold as you sight on the target through the scope or along the open sights. Also, any rifle, irrespective of power source and with or without a scope fitted, has a point of balance. Your leading hand should be positioned approximately 2 to 3 inches in front of this balance point. Adopting this shooting grip while standing is known as the offhand stance, and many opportunist snap-shots will be taken from this position. This is fine if you're using a light- to medium-weight rifle such as a carbine, but if using a hefty full-length sporter it can become a strain and cause you to wobble, the longer you hold on aim, due to your arm muscles taking all the weight. If you do have more

time to take the shot, pull the elbow of your leading arm round to rest into your hip – another stance favoured by FT shooters – as this affords a much more stable aim.

Even better, if the situation allows, is to adopt the kneeling position. In this position the leading arm can be rested on the left knee with your bottom sitting on your right foot, heel tucked under the body and with the right knee rested on the ground. Of course, the opposite of this applies to lefties, which involves resting your leading arm on your right knee, and sitting on your left foot. There's a slight variation of the kneeling position and, if the ground isn't too muddy, it is one that is even more stable. This is to kneel lower with the right shin almost flat to the ground, ensuring that you're sitting comfortably on the lower leg, with your right foot tucked under your bum. This allows you to rest the upper forearm of your leading arm along your left thigh, rather than only the elbow. A much more relaxed and therefore stable shooting position can be achieved by sitting in this way. More detail for changing shooting positions is outlined later, when we come to combining fieldcraft and shooting techniques in the field.

When on the target range, and whichever shooting position you use, don't pull the rifle butt-pad too tightly into your shoulder, as this will have the same effect as gripping the stock too tightly, because it causes tremors. Another factor that needs to be considered is that the impact point of the pellet shifts off zero when you alter the position you're shooting from. For instance, if you set zero in the kneeling position, don't expect it to be the same when shooting in the standing or prone position. Again, judging these zero shifts is a skill which, like all aspects pertaining to your shooting technique, can only be achieved with dedicated and applied practice.

When shooting prone (i.e. lying down), where possible I prefer to deploy a bipod, especially if waiting in ambush. Often this isn't possible, and if you've decided to go stalking you might not even have the bipod in place, and for most airgun hunters out for a spot of general hunting, the shot taken from the prone position is more often than not at the end of a stalk. You'd think the shot would be the easy part as you are well within range, and taking the shot should be a matter of course. Often it is, but after stalking a twitchy bunny you'll be pumping with adrenalin and this,

coupled with the physical and mental exertion, means your nerves will probably be sending tremors around every muscle and fibre, with your breathing being laboured, heavy or both!

The technique of stalking is dealt with in full in the chapter on Hunting Techniques, but the prone shooting-style needs further discussion here. For a recoilless PCP then as long as you're comfortable, the main difference you'll notice is that the scope will seem closer to your eye, because lying prone tends to push your head further forward than when you are shooting either kneeling or standing. It doesn't take much to adopt a style that will allow for this, and the optimum way to combat it is to let the rifle out of the crook of the shoulder to rest in the upper arm, pulled slightly back. In this position your shooting (trigger) hand is holding the grip and rifle squarely onto the target, whilst your leading arm should act as a rest for the rifle's foreend.

Shooting a recoiling rifle such as a springer or gas-ram from the prone position is a different matter altogether. This is because in this position both arms holding the rifle are in direct contact with the ground – i.e. a hard surface. The rifle will therefore tend to jump off zero, either to the left or right. Some find the muzzle is more likely to flip, causing pellets to fly higher than the set zero. There's no way around this but to familiarise yourself with the particular zero shift and keep a mental note of it while you target your quarry and 'aim off' accordingly. Again, only practice will give you the ability to shoot like this and, like the standing position, this is one you need to master fully. I'll reiterate the fact that you can't always get away with using a bipod with a PCP, as many times it won't be practical to have the 'pod in situ. One aspect of the prone position is that strain is soon felt on the lower back muscles. To combat this you can raise yourself up more on your elbows with your back slightly arched, so you're not cricking the back upwards at the waist. There are some situations that allow the body to fall into a more relaxed position for prone shooting, such as when lying over a slight hillock or from a ditch. These are usually prime areas for ambush shooting, and more information for body positioning can be found in the relevant sections pertaining to shooting using a bipod. Always remember that an unduly uncomfortable shooting position isn't conducive to accuracy.

It's worth noting here that of all shooting positions, the seated position is the one that offers most variations on a theme – almost like a fine-tuning of the body position to achieve the most stable and comfortable hold. You will find which suits you by trial and error, and simply by practising. As examples, you can sit with the left leg half outstretched and your leading arm rested along the thigh, with the left leg raising or lowering to adjust height of shot. Alternatively, you can form a brace for the arms. Sit with your bottom flat on the floor, and half raise both legs at the knee approximately a shoulder-width apart. Then rest the elbows of both arms into the lower inner thighs or alongside the knees of the corresponding leg to arm. It sounds confusing, but is a very comfortable position and one that can be held for quite a lengthy period of time.

Then there is another particularly stable seated position, which is found by keeping the bum flat to the ground but drawing the right leg towards and across you into the half-lotus position (no sniggering!) and drawing the left leg inwards and upwards to form the front support. Rest the elbow of the leading arm on the lower thigh of the left leg, just behind the kneecap. Obviously, for left-handed shooting from all positions, the opposite leading arms to raised legs apply. You don't need to take yoga classes, but do take the trouble to experiment with the seated position because many times it's the body position that will keep a shot steady.

Sight Pictures

For open sights the sight picture relates to the position of the foresight within the rear sight, and those two superimposed on the quarry. For telescopic sights it relates to the clearer view you see as you look through the scope.

Although many hunters will go straight for a set of optics on their hunting rifle, for reasons of thoroughness I've already dealt with open sights. In relation to shooting with a scope I've also explained the distance known as eye relief, but it is worth re-capping here in relation to your shooting technique. Eye relief means the distance your leading (aiming) eye is positioned rearwards from the scope's eyepiece. This varies with individuals (and also depends on the scope being used) but

for most shooters it's usually around three inches or so, a distance that gives you a full sight picture – i.e. you can see the full circle of the front objective lens through the rear lens. Once you've set your scope in the scope mounts you'll probably feel you've got it just right, and more often than not you will. However, a little trick to ensure correct eye relief is to close your eyes for a few seconds, bring the rifle up to your shoulder and hold it in the most comfortable aim position with your head resting on the cheekpiece, then open your aiming eye to look through the scope. If you need to move your head forward or backward, even slightly, to attain a full sight picture through the scope, then you've not set the scope eye relief correctly to suit your natural hold. Also check that the scope crosshairs are still in line with the plumb line on the backstop you originally used to centre the scope. They too could be slightly out. Try it, as you may well be surprised to find that the eye relief and scope setting you've previously been shooting with is incorrect. If so take the time to adjust the scope accordingly. Listen to your body, because while your eyes are closed it will naturally adopt the most comfortable position that is best for you when holding the rifle. Get it right, and you'll soon notice the difference in your accuracy and your success in the field. Do set up the eye relief for the standing shooting position if you are sure most shots will be taken from that stance. It's worth noting that scopes that have a longer degree of eye relief often prevent the shooter having to waste precious time in adjusting head position for awkwardly angled shots.



Many times during a hunt, it'll be possible to adopt the more stable kneeling position



The 'over-knee' F.T. position is very stable to use but not always practical

When adjusting the power ring for different magnifications on a variable-power scope, you'll find that a scope with a longer eye relief always gives you a full sight picture, as long as you've mounted the scope correctly. Scopes like this are also one solution for a rifle that may otherwise need to have more conventional optics fitted in set-back mounts to obtain correct eye relief.

Allowing For Range and Other Variables

Rangefinding and estimation have already been discussed in the chapter on Scopes, but a scope can only help you determine the range if you know how to use that particular optic's reticle to do so. Also, most hunters using the 30/30 or duplex-style reticle will use what is known as 'holdover' for a target further than the set zero, and 'holdunder' for a closer target.

Now for the nitty-gritty of considerations relating to shooting at live quarry. In a perfect world the target would be perpendicular to your aim

and within a yard or so of your set zero. In reality, what is more likely is that after hours of waiting in ambush or careful stalking you either virtually trip over a bunny, or a woodie pitches into the trees at well beyond your set zero. Here you have two obvious range differences and two vastly different angles of fire to the target. So what to do? I'm sorry to harp on, but only practice and familiarisation with your combo will give you the experience to allow the correct amount of holdunder or holdover. These allowances will also vary depending on whether you're shooting the smaller .177 or larger .22 calibre pellet. Less adjustment – i.e. less aiming-off allowance – is needed for the .177 calibre and that is one of the main reasons why many hunters are now switching to it. It does not allow a sloppy shooting technique or bad range estimation, but by and large it is far more forgiving of slight errors on the part of the shooter.

As I've recommended, hunters to have a selection of rifles at their disposal in at least the two main calibres, I must also stress the importance of relearning those aim points for holdunder and holdover when you switch rifle combo. Even the occasional flirtation with the smaller calibre will have you feeling overconfident at longer range with the .22. In other words, it's back to the target range before you shoot at live quarry, so that you're back in tune with the trajectory and particular qualities of the rifle/scope/ammo equation that makes up the combo. Yes, it is a combo because all three (indeed four, including yourself) make up the final 'team' you use to cleanly dispatch your chosen quarry; and always, repeat, always stick with the same ammo you used to zero your rifle and scope for the hunting trips that follow.

Earlier I touched on the angle of fire. This is the angle at which the barrel is pointed towards the target, whether upwards or downwards. It seems that even experienced hunters disagree on the allowance that needs to be made for awkwardly angled shots. Even now I'm not a great fan of the longer-range shot into the tops of trees, the reason being that there are so many variables to contend with besides gravity. At the top of a tree the wind will be at its strongest, and will therefore affect your pellet in flight. You can, of course, watch the upper branches and twigs for indications of any wind strength and direction. Those who say they can regularly judge a shot on a swaying bird are usually not giving the full story. It can be

done, but should only be the type of shot you make when you have become fully accustomed to virtually every shooting situation and angle, and have experienced what gravity, wind and even your confidence can do to a pellet's flight path. The same airgun hunters who brag about these shots might admit to clean misses, but they're certainly not admitting to the times they've downed the bird but only wounded it. This is worse still if it has flown off to die, rather than retrieved at the foot of the tree and swiftly dispatched. So if unsure – don't take the shot. Wait until a shot within your capabilities presents itself – and don't worry, because it will. While on the sensitive subject of wounding, it's a situation that will happen to even the most experienced shooter, and it is wise to be prepared for this eventuality. Should you wing a woodie from the trees then the best way to kill the bird is by a swift, solid blow to the head with a priest, or by swinging it around by the head to break the bird's neck. I have seen many fancy methods that allegedly dispatch birds more humanely – but they don't! It's either a pellet in the kill-zone, a sharp knock from a priest, or the neck twist. If you think this barbaric, then don't hunt, because you will at times need to get your hands bloodied.

But we mustn't stray from the main subject of how to shoot accurately and compensate for elevation. First, you need to appreciate the relatively low speed at which a pellet fired from a 12ft lb air rifle travels. For instance, a medium-weight .177 calibre pellet of 7.9g travels at approximately 825 f.p.s and a medium-weight .22 calibre pellet of 14.3g travels at approximately 612 f.p.s. These figures might seem fast, but when you consider that an average .22LR calibre 45g sub-sonic, medium-weight, rimfire bullet travels at approximately 1050 f.p.s (which equates to approximately 100 ft lb) I think this clearly illustrates why an airgun pellet loses trajectory in flight rather rapidly, due in part to gravity dragging it towards the ground.

A pellet fired horizontally will behave differently from a pellet fired at an angle, simply due to the effects of gravitational pull. For instance, let's say that your rifle is zeroed for 30yds. If a shot is taken horizontally at this distance the pellet will travel 30yds under the pull of gravity over all of that distance, but your zero has already been compensated for the expected drop (i.e. the trajectory), so you aim dead-on. But if the target is in the top of a tree (or the bottom of a gully) and you judge it to be 30yds

from rifle to target, you will have to aim slightly lower in both cases. The reason is that while the target is 30yds away, the horizontal distance the pellet will have to cover will be less than 30yds so the pellet's trajectory will effectively be less, and you have to act as though the target is closer. Hence you aim lower.

I know this might fly in the face of what you've possibly read previously in various publications on the supposed fact that a pellet travelling upwards is affected by gravity pulling more towards the rear of the pellet. That's not strictly true, and it's in the field that you'll realise that steeply-angled shots are awkward to calculate. But by following the simple guide I'll outline, you can counteract the difference in trajectory you will experience. To determine the exact amount of holdunder necessary would take a degree in trigonometry (or at least a calculator), as you would need to know the distance to the target, the exact angle of the shot and the height or depth of the target from the horizontal plane of the shooter, and then how all these and other factors would affect trajectory. Phew! Basically, you just judge the range of the target from the rifle as usual, and then aim slightly lower than you normally would for that distance if it were horizontal. Try this out on high and low practice targets before you attempt such shots at live quarry, in order to know your own required point of aim accurately. These can be twigs or leaves high up in trees.

As a starting point, try aiming a half an inch or so low at the target with a .177, and around threequarters of an inch low with a .22 calibre rifle. If the angle is particularly steep – say for instance you are at the base of a tree – you will have to use even more holdunder. This is because you will probably be much closer to the target so pellet drop is far less.

To recap, and as a rule of thumb – the steeper the angle to the target then the more allowance is needed as the pellet arches upwards instead of following the more traditional horizontal trajectory line. But this only applies if the angle of fire you're shooting at is 45 degrees or higher and the range to the target is close to your set zero. Should you be lining up for a longer shot, much further than your set zero, and the bird is high in a tree then you'll probably now need to allow for holdover, as the pellet will be affected by gravity over a longer distance. This can get confusing,

and only practice will help you master the art of awkwardly angled shots. Usually it's the high ones that will present themselves and be the most difficult to assess. In fact, it's only when the angle gets to around 60 degrees and above that you should have to consider compensating for the change in trajectory. Most upward shots into trees are at roosting birds, or those alighting into sitty trees. It is a skill that needs mastering, should you choose to tackle quarry in those situations. (Incidentally, I'll dispense with vertical shots, as they're nigh-on impossible and virtually never worth taking because the bird is likely to be in a position that offers no clear kill-zone).

As for downward-angled shots, particularly if taken at a slightly downward angle and either in the standing or kneeling position towards quarry on the ground, most times you won't need to allow for any compensation for the change in trajectory from its horizontal line as the angular distance isn't very great. But if you're shooting from a high seat, a tree position or an upper window of an old building (where the situation is allowed, and opportunity arises) then it certainly does need consideration.

To all this we must add the need at times to compensate for a crosswind so, as you can see, the subject of elevation compensation is fraught with many variables, and only experience using the information given as guidelines will help you to be consistently successful.

On the subject of shooting in very breezy conditions, I'd always advise the relatively inexperienced shooter to avoid this if possible. But shooting in a light wind can be beneficial, especially if stalking, as to a certain extent the wind carries away your scent and any sounds you might make. However, if it's only a light cross-breeze, a shot taken over a medium-range of 25 yards shouldn't be duly affected. If shooting at ground level near hedges, the strength of the breeze will be less than if shooting over an open field or into trees. Even a moderate crosswind will create the need for what is known as 'aiming off' (to one side or the other, (depending on wind direction) in order to allow for the wind to drift the pellet back into the kill-zone. Again, only practice and a great deal of experience will help you determine just how much lateral allowance to give for any given wind conditions. The shooter who forgets to allow for these variables is the one who has the smallest game bag.

These variable factors lend more weight to the .177 slug as being a better option for the hunter. The pellet is lighter and flies faster. It zips through the air, and a light crosswind affects its smaller mass less, but remember that the greater the distance your pellet has to travel, or the more disturbed the conditions it has to contend with to get to the target, then the more it is affected and the less ‘oomph’ it delivers when it gets there. So in inclement weather I’d never chance a longer-range shot, and all will be taken with 30–35 yards at most. You might think this sounds close for an experienced shot, and it may well be; but it’s a more responsible attitude than to risk injuring your quarry.

Trigger Control

Consistent trigger control or ‘trigger release’ is a technique neglected by just as many live-round shooters as airgunners. Many are seemingly quite happy to just hook their finger around the trigger blade and pull. Maybe that’s a crude description, but it suits the crude trigger control and hand grip positions I’ve often seen many so-called ‘experienced’ airgunners adopt. For optimum trigger control your trigger finger should be square to the trigger blade, and the only part of your finger touching the front of the trigger blade should be the pad of your forefinger. When ready to take a shot, you should gently squeeze the trigger, almost feeling your way through the shot until the trigger mechanism trips the sear to send a pellet zinging along down the bore. Also, at the pistol grip, the stock might have a channel allowing you to adopt a thumb-up hold. Many feel this helps with trigger control, as the hand is in a more relaxed and natural position. Personally, I prefer this hold when catered for, especially if the stock has no thumbhole for my big digit!

Before leaving this important aspect of shooting it’s worth thinking about the thorny subject of breathing in relation to taking the shot. I know some who take a deep breath, hold it in, and then shoot. Wrong! I know it can be very hard when the adrenalin is pumping, but try consciously to calm your breathing into a slow, easy rhythm. Then breathe out gently and fairly fully, pause and shoot. In most hunting situations you’ll probably think you don’t have time to do this, but apart from snap-shooting, where you don’t have time except to aim and fire,

you do. Once you get experienced in this breathing technique it will become second nature, and you'll do it subconsciously before every shot is taken. Then just watch the tally of your hunting bags grow. And it doesn't end there as let's not forget that once you've tripped the sear, you need to allow for follow-through. Personally, after squeezing the trigger I hold the sights on aim and watch through the scope, almost willing the pellet to impact where I'd placed the scope's crosshairs before I'd squeezed the trigger.



Practice shooting in the prone position as more often after a long stalk you'll need to take the shot like this

Incidentally, most of this relates to the basics of shooting with a recoiling rifle, but most also applies to shooting with a PCP. I'm sure you can guess what I'm going to say now. If you're a hunter who's spoiled themselves by recently using a PCP air rifle but still have a springer lurking in the back of the gun cabinet, or in a case at the bottom of the wardrobe, then why not really get back to basics? As you blow off the cobwebs against paper targets, chalk discs or knockdowns, you just might be very surprised to discover just how much you've been taking for

granted about your shooting, and maybe even just how much you've forgotten about the essentials of the very art of shooting itself.

Field Technique

Practice is the only way you will achieve a consistent level of accuracy. I can't stress enough the importance of making yourself fully accustomed to the capabilities of your rifle, scope and ammo combination. Everything should become second nature – bringing the gun up to the shoulder, aligning the eye and taking care not to cant to left or right before shooting; and, of course, a consistent and smooth trigger release. Before attempting to shoot any live quarry, it's imperative that you achieve an acceptable level of accuracy at inanimate targets. In other words, it's back to the target or plinking range until you can consistently make good groups of approximately an inch out to 25 or 30yds, depending on your set zero. Practice should ideally involve shooting at different ranges and angles of fire, and from different positions. Remember that in many cases when out hunting, your shots will have to be taken in the standing position. Although it's not the most comfortable of stances, do take time to practise shooting from this position. It may sound obvious, but the way you stand will affect the accuracy of the shot. When we naturally stand, say in a queue, most people lean on one leg more than the other. It's a similar comfortable position that you need to adopt for taking a standing shot. Your feet will be a shoulder-width apart, with most of your body weight transferred to the left leg, which should be forward of the body. For lefties, the opposite applies. You should be standing almost side-on to the target with the rifle across the front of your upper torso, and squarely lined-up at the target.



The seated position is the most versatile and offers the widest variations

The standing shot certainly needs mastering, but in the field you'll often get the chance to adopt the kneeling or even prone position, especially if you're targeting a rabbit. Only experience will tell you when you need to act quickly with a standing snap-shot or when the quarry is sufficiently comfortable to let you take a little more time to rest yourself into a more stable position. When the adrenalin is pumping it's all too easy to rush, but experience has taught me that I can more often than not get myself into a rested or supported position. Even at your most comfortable, you'll probably become aware of the reason why shooters miss, and that's the simple fact of your body moving with your breathing and your pulse. You'll find you can never actually hold a rifle stock-still in any position except off a bipod or similar rest, and even then natural body movements can affect the shot. The most important art is learning to control that movement as mentioned earlier, with your breathing and basically by calming your nerves. It's not easy when under pressure, but it's this technique, when mastered, that has won many FT competitions and filled the biggest game bags. Learn to take the shot only when your

timing is right, the cross-hairs are on the target, and your body is under your control.

With the standing shot there are times when you need to shoot upwards into trees. We've covered the need to allow for the angle of fire, but this is also when you will need to slightly adapt your stance and rifle hold. Your body should be leant slightly back to transfer your weight onto the right (i.e. rearward) foot. The opposite applies for lefties. Whichever the case, avoid leaning back from the waist as this will result in straining the back muscles and accentuating any wobbles. Your leading hand should be allowed to slide back naturally along the forend to hold the rifle at the optimum point of balance. Basically, as the rifle is elevated, the combo's point of balance moves back and so should your hand accordingly. Let the rifle fall more onto the upper shoulder, and all other aspects for physically taking the shot remain the same. Where possible – and often it is because I'm shooting in a predetermined ambush point waiting for birds to come in to roost – I'll stand or sit with my back to a tree trunk as a rest, and to disguise my form on the woodland floor from eyes up above.

As regards changing position when encountering ground level quarry, should you be in a standing position when you encounter it, you can be almost certain that if the quarry isn't overly twitchy, it'll be far more appropriate for you to lower yourself slowly to one knee or even flat out on the ground. Often a rabbit will have spotted you, but by lowering yourself you can fool the animal into a false sense of security because, in effect, you are adopting an unthreatening posture. Try this and you'll soon discover that rabbits will resume feeding, so you have time now to either move slowly forward, or just rest, before gathering yourself and calming your nerves ready for the shot.

Some of the advice I've given may initially seem unfamiliar, but the more you shoot and hunt it will become obvious why you need to hold, stand, sit or lie down on the job like this. Before leaving the subject of the shot, it's imperative before trying your hand against any live quarry that you make yourself fully familiar with the vulnerable aim points of each individual quarry species, or as it's known – the kill-zone. On any species this is the area on its body that when hit with a pellet with sufficient force will cleanly dispatch it. Only when you have the ability

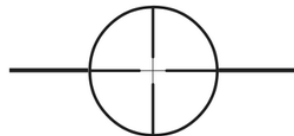
and knowledge to achieve this should you embark on your first hunting foray. The aim point is always quite small, usually a headshot, neck-shot or into the heart and lungs. This is why consistent, accurate performance is essential. Never overestimate your ability to shoot accurately at various ranges. In the field with adrenalin pumping even the relatively experienced can make hasty and, to your quarry, painful mistakes. You should always strive to dispatch your quarry effectively, as quickly and humanely as possible. There are also as many times when you'll need to be disciplined enough not to shoot, for risk of wounding quarry due to the animal not presenting a clear kill-zone. Similarly, there could be foliage or twigs between you and the target. In most cases only patience will solve the problem as, more often than not, rather than move position and risk being spotted it's better to wait until the animal turns so that a kill-zone is clearly visible. Also, although the target may look clear through the scope, look to the side or carefully peek over the optic and you'll often clearly see twigs or plant stems that could possibly cause a pellet deflection. In this case, slightly shifting your shooting position to your left or right might just find a pathway for your lead.

As for the kill-zone, different angles presented by your quarry in relation to you give different degrees of size in terms of both surface area and shape. By this I refer specifically to instances when the quarry is facing you, standing sideways on, sitting or standing. All kill-zones are fully explained later as we deal with each quarry species, but as a rule of thumb a full-on shot presents a larger horizontal line for you to drop the pellet into.

As I'm sure you can now appreciate, airgun hunting can be one of the most infuriating of shooting sports but, due to the demands put on the hunter, when you make that successful shot it's also one of the most rewarding. Before leaving the subject of taking shots, I must comment on shooting at a moving target. It may well sound enthralling that you can get to a level of accuracy with an air rifle that affords you the ability to shoot quarry that's running for cover. I've been shooting for many moons, and the only quarry that I regularly shoot 'on the hoof' so to speak is rats. One of the reasons is that the rat is a crafty critter that often doesn't keep still long enough for a studied, measured shot; but when it's on a regular run across a beam or along the foot of a wall, then you can

(with experience) give the shot enough lead to put the pellet into the front one-third section of the rat's body, which gives a clean kill.

Shooting at running or even moving rabbits is another matter altogether. I'm not being biased, and my advice is born of years of experience. I feel the responsible shooter should never attempt to do this, for a few specific reasons. A moving rabbit rarely runs in a straight line, or with its head (or for that matter enough of any exposed kill-zone on the body) perfectly level. A rabbit can scurry, scamper, hop, zigzag or bound to safety. Loosing off a pellet in its direction serves no purpose other than to educate the rabbit to the danger of the raised rifle, the muted muzzle report and the subsequent whistling sound from the pellet flying past it. If you do fluke it and hit the animal, it's more likely that – through pure adrenalin and momentum – it will get into cover or down a hole to meet a painful, lingering end. Do you want this? No, and your quarry deserves much more respect. Both rats and rabbits are regarded as vermin, and this attitude might seem like a case of double standards, but whilst the rat is little more than a walking disease, the rabbit is quite a noble little creature. If you want to shoot quarry on the move – get the official police paperwork sorted out and buy yourself a nice-handling 20-bore or 410 shotgun.



6

Finding a Shoot

Finding a suitable area to shoot over is without doubt the hardest part of getting started as a hunter, and especially as an airgun hunter. From the start I feel I should fully clarify this. Farmers understand the need and use of the shotgun, and are usually grateful for the shotgunner's help in the ongoing battle with the woodpigeon. However, we have to admit that the airgun has had a lot of bad press in various ways, and is perceived by some as not really being a 'proper' gun for general vermin control. So before you even start, the odds are rather stacked against you, as you may have to convince your prospective hosts as to your effectiveness, as well as your responsible nature and attitude.

All land in the UK is privately or publicly owned. You can't shoot over public land, and for private land the permission of the owners is always needed. Without permission to shoot on somebody's land, you are poaching. There's no middle ground or grey area because the law sees it like this. In law, you can be charged with armed trespass, and in these increasingly gun-sensitive times, the penalty for being where you shouldn't be are quite severe. Pleading ignorance isn't going to do much to get you a reprieve or pardon – so how do you go about obtaining permission to shoot on somebody's land?

If You Don't Ask You Don't Get



Finding suitable land to shoot over – the most difficult hunt of all



Do your homework – the search begins here

That pretty much sums it up. A good way to start is really to get to know your local area. Not just where the farms, fields and woods are, but more importantly who owns them and employs the people who work there. You can begin by asking at your local gunshop, and they will be more than happy to help you with any queries and questions. They will possibly be able to supply contact numbers of known rough shoots already established in the area. Indeed, it's in their interests to point you in the right direction because the more you go shooting, the more ammo and shooting kit you'll need to buy. Although I don't want to dampen enthusiasm before you get started on searching, they'll have been asked many, many times by others before you. Also, whilst rough shooting often comes available for the shotgun shooter, the airgun is still seen by many as the 'boy's toy'. Of course we know otherwise, so that's one of the factors you should keep in mind when asking and looking for land to shoot over. An area that's unsuitable for a shotgunner or firearm sportsman may still be riddled with vermin, and many areas that are unshot can get overrun with pests. Finding yourself in the right place at the right time, asking the right questions, can bring surprising results. So even though it may just be a few fields and hedgerows covering little more than a few acres, don't ignore it as a possible place to begin your quest to find a shoot. As they say, 'from small acorns ...'

To make the most of your shoot area it's essential to obtain the relevant Ordnance Survey (OS) maps. OS maps show all the roads, footpaths, farm tracks, buildings, features and even the contours of the land, and you need to know the type and lie of the land if you are going to hunt certain species. For instance, if it's rabbits you intend to target, then you will be looking for fields surrounded by hedgerows. If it's woodpigeons, magpies and other corvids, you will be looking for land that contains at least a small wood, at the very least one copse, or better still, scattered clumps of trees. As for rats, collared doves and feral pigeons, any farm with a barn or a few run-down outbuildings should fit the bill. Once you've marked the particular farms that meet with your requirements on your OS map, you've still got some homework to do before making your initial contact.

First, go along to the farms you have picked out for an initial reconnaissance of the area, but do keep to the public access routes. I

know I shouldn't need to say this, but do leave your gun at home. Don't trespass, even if only jumping over a gate to get a better look at a far hedge line or wood, as you could blow your chances of getting a shoot before you start. Keep a record of the farm, its land and any quarry you see during your recce, as this will be useful later when – or indeed if – you get to talk to the owners.



A feature such as a dead tree will stand out on the landscape – as a potential sitty-tree it's an area worth noting

Check out whether the place is still a fully working farm. Look for signs of farming activity, such as farm machinery, livestock or crops in the fields – anything that indicates the land is being worked. If none of these are in evidence, then the farm could have changed hands and may now just be a private dwelling. If that's the case, then this is usually not

the place to find your shooting ground. The owners will probably have little interest in the land in terms of land management, and they'll probably enjoy seeing the 'cute fluffy bunnies' in the morning – as long as they tolerate the critters hammering their lawn and garden. In other words, they'll have bought the house and land for its scenic attraction and the privacy it affords them. Unless they realise the benefits of controlling certain vermin, an airgun hunter won't be high on their list of priorities.

However, always keep that in mind about smaller bits of land that are unsuitable for shotguns or firearms. Market gardens, plant nurseries and the like can often bring a surprise or two in the form of acquiring shooting permission. Also – bizarre as it might seem – don't ignore built-up areas. Find out who owns the run-down industrial mill or commercial units where you've seen feral pigeons hanging around. The chances are that they roost in the buildings at night and are causing a hell of a mess. It's always worth asking if there are any problems like that which you can help with, and even though this sort of shooting may not be your first choice, this can have a knock-on effect in that your name is passed on to other people who may have land more suited to the kind of shooting you prefer.

First Contact

After a few trips out, you will soon narrow down your list quite drastically, but when you've located suitable farms that fit your criteria, then it's time to make contact. In the first instance, contact the farmer or landowner by letter, not forgetting to enclose a stamped, self-addressed envelope, and also your home telephone number (and your mobile number, if you have one). Take the trouble to have your letter neatly typewritten. Explain your request in a manner that shows you have an understanding of what working a farm entails. Stress that you're responsible, will leave no litter, cause no damage, and will respect crops and livestock. If you belong to B.A.S.C. (which I advise you should) or a similar organisation, mention it, along with any insurance cover you carry. Tell them that you can and will supply at least two independent references as to your good character, as a couple of good references can make the difference between securing a shoot or missing it. Remember

that you are, in effect, asking the owner if you can walk around his property with a loaded gun. Ask yourself this: would you let someone who appeared dodgy hang around, let alone shoot an air rifle in your back garden? I think not. Don't expect a quick reply. Farmers are very busy people, and if you start phoning too soon or too often you'll probably put them off.

Obviously the number of letters you've sent out will govern how many replies you can expect to get. For instance, if you've sent out two dozen requests, you'll be doing well to get two or more replies, even with a stamped, self-addressed envelope enclosed. You might think that's a small percentage, but that's the way it is. We live in a world where people are always asking for something. Unfortunately, the farmer will probably have been asked many times before, and all too often your request will get put on the same pile or end up in the same bin, but don't be disheartened. At your first positive lead, which is almost certainly going to be because you've telephoned to follow up a written request, follow it up immediately. That hopefully means you'll be arranging your first visit.



Know your quarry – woodies can cause devastation over farms growing cereal crops



A few collared doves and the like are often tolerated around farms – listen to farmers and only shoot what they specify

Attitude

So you've now got to the all-important point of first contact, and it will possibly require subsequent phone discussions before a face-to face meet. During your initial conversations, don't be pushy. They might not have fully made up their mind, so be diplomatic. Mention you have some knowledge of the farm; tell them you've seen and studied the relevant ordnance survey map and that you're aware of the surrounding land and main features, but don't sound as if you've been spying! Try to convince them that you can offer a free, efficient service that will help in the control of vermin. Though many hunters understandably want to get stuck into quarry such as rabbits, ask first if he's having trouble with rats or feral pigeons. Controlling these species for a farmer can often be a quick route to being accepted on the property for other quarry with your air rifle. Whatever you've noticed about his farm, comment on it if it is relevant to vermin control and something that may be causing him problems. Being forearmed with some knowledge of the pests that are on his land is where your initial recce will pay off.

Be prepared for rejection at any time, but once a positive reaction has been received, which it eventually will, don't waste the opportunity. Ask

when it's convenient to visit the farmer personally and be prepared to meet him anywhere of his choosing, usually on the land. Don't presume that you can visit the house immediately. This meeting will be at an arranged time, not just a 'come round to the yard' sort of invitation. Why do I mention this? A farmer is a businessman, and his business is farming, so it follows that you need to be businesslike in your approach and attitude when you turn up for a meeting. That doesn't mean you need to wear a suit and tie – I've never worn one, never have, and never will – but you can easily dress smartly and project a responsible, respectable image. When you finally get around to meeting the farmer this really is a situation when first impressions do count for a lot. Whatever you do, don't turn up fully camo'd up with your rifle slung over your shoulder. Believe me – I know people who've done this and, incredible as it sounds, they are actually surprised when they're turned away. During your visit be polite, have a friendly manner, and let the farmer dictate the pace of the conversation. At this point he'll probably be 'weighing you up', so to speak. Just in case, take along your gun in its bag but leave it in the boot of the car and out of sight. The farmer might want to see what type of gun you intend to use on his property. As I've said – don't be pushy. But, due to the modern hi-tech look of certain PCPs, I've often found that this in itself can be an ice-breaker, as the farmer usually remembers the old springers and might well find your new-fangled piece of kit quite fascinating, and if a conversation develops on this – all the better.

If the meeting has gone well and the farmer has time, he might show you the area you are provisionally allowed to shoot over. You won't (or very rarely) be given carte blanche to go wherever you like, whenever you like. More likely he'll steer you to an area where he's having specific problems with a particular vermin quarry species. This is where it pays for you to know your stuff. Nothing impresses more than a good knowledge of the quarry and what it will be doing that's making it such a headache for the farmer. If you get to shoot, early results are even better, because the farmer will soon realise that having you around is mutually beneficial. On the subject of primary areas you may be shown, and specifically told you can shoot over, pay particular attention to what is said. In fact, don't take it for granted that you can shoot anything that's

legally deemed suitable by law for air rifles. Ask the farmer if he wants anything left untouched. Some tolerate and even like to see a few collared doves or squirrels about the place, so don't blow it by shooting something his wife or relative has been feeding for years! Listen to him carefully when he outlines the boundaries of his land. It helps to have a notebook handy, because a hedgerow pointed out on a visit can, if not noted correctly, be mistaken for the next one along when you visit the next time, and you could quite easily find yourself straying inadvertently (but still illegally) on to a neighbouring farmer's land. Ideally, these are the neighbours you will want to impress in the fullness of time. Eventually, they too will hopefully realise that your services are very useful.

When all is sorted, and before you take your gun from its case, get your shooting permission in writing as soon as possible, with the farmer's signature. You'll need to carry this with you at all times when on his land. It goes without saying that you should treat the farmer's hospitality with respect, always closing gates behind you, leaving no litter, and taking care not to shoot so as to spook his livestock. This is specialised shooting you might have to undertake eventually, but not one you should even be thinking of doing at the outset.

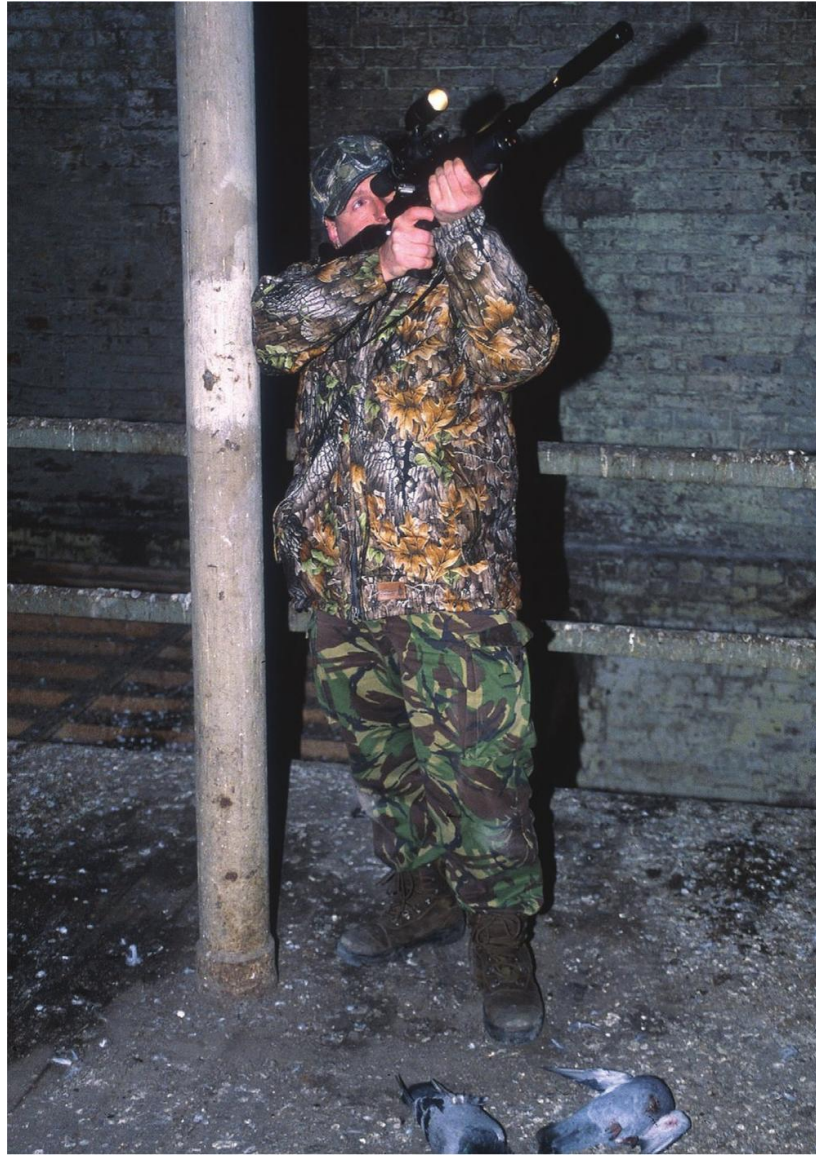
Only shoot at times that have been agreed, and if you want to shoot at night make sure this is allowed, and always let the farmer know when you'll be there 'after hours'. If you bag a few rabbits or woodies, always offer them to the farmer first, if you see him. A bottle of something at Christmas will certainly be a nice gesture, and is looked upon as a country tradition.

A Word to the Wise

Even now when I secure new land to shoot over I feel I've achieved something. That's because it's the hardest hunting of the lot, and as the years go by it seems to be getting harder. Another factor that many are shy of stating publicly is that, by and large, the shooting fraternity can be very cliquey. More often than not, when you finally acquire your shoot, you'll be shooting over land that already has an established group of shooters present, perhaps rough-shooters or game shooters. They will –

rightly or wrongly – guard their own shooting permission with varying degrees of acceptance of your presence or, quite frankly, of resentment. Don't get me wrong, because not all people are like this; but it's all too easy to upset an applecart, no matter how unwittingly, especially in a close-knit community where the shooters may have ties to one another through marriage or even direct bloodlines. You will always be the new boy, and last in really does mean first out. I'm not trying to put a dampener on the matter, but do heed those words as you go about your shooting, and never become complacent. If you hear of another possible shoot, try to get your foot in the door there as well. If it means more travelling than you'd expected you should still pursue it, because you never know when permission to shoot on a farm can be withdrawn. If it is, it isn't necessarily due to something you've personally done as a shooter, and usually isn't.

Opportunities to Shoot and Learn



Shooting feral pigeon can often have a knock-on effect into gaining contacts to the kind of shooting you prefer

Another avenue to try for what can often result in shooting permission, and one that will certainly help you develop your field craft, is to help a fox shooter. Accompanying an experienced fox shooter on nighttime hunting forays can bring a mass of opportunities and knowledge. Occasionally, you'll either hear through the grapevine or even see an advert in a gunshop or broad-based shooting publication that a person is

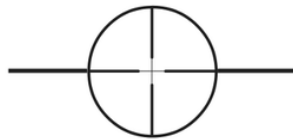
looking for someone ‘enthusiastic’ to help him with fox control. Invariably this will mean carrying the battery pack and operating the spotlight. This might seem to have little relevance to airgun hunting, but you can and will learn a hell of a lot. Watch the way they move over the terrain at night; listen when they give you tips on using the lamp, take note of their gun handling, watch the way they use the wind to their advantage, and marvel at the way they can actually ‘call in’ their quarry. It’s all fascinating stuff, and much will be relevant to the use of a lamp for your nighttime hunting exploits on bunnies. Often for your help, your ‘payment in kind’ will be an invitation to a farm where the fox shooter has permission to shoot. Here you’ll possibly get chances to use your air rifle at suitable-sized vermin. The fox shooter rarely has time to keep on top of the rabbits, crows, and squirrels that pester most farmers, but it’s his duty as a pest controller on the land to help his host to cull all vermin. More often than not the fox shooter will be grateful for your help, as you’re doing a part of the pest control he either has little interest in or, more likely, he’s not got enough time to do justice to. Also, many shooters in rural areas double up as part-time gamekeepers. They’ll be well practised in setting traps and snares, and this could well be another area where you’ll be asked to help out. You may or may not find this of interest, but it pays to offer help to pest controllers undertaking trapping or snaring campaigns – especially in spring, when it can be a very time-consuming operation. Take an interest in all you see as you progress as a shooter, and always offer and be prepared to help on the land.

So what can you expect, once accepted into these inner circles? Usually, you’ll first go out for a walk around the surrounding land with your newfound shooting companion. He’ll show you the area and watch to see if your shooting, gun handling and safety are of a sufficiently high standard to warrant you being trusted to operate on your own. Eventually, he’ll introduce you to the farmer and maybe, just maybe, you’ll become a trusted part of this shooting fraternity and get written permission for a piece of land to shoot whenever you wish. Always be grateful to that first contact, and to those you meet along the way. By now you’ll have come far, and you may even progress to be invited to accompany a deerstalker in his quest for the noble antlered beast. You might be the one who has to drag the culled beast off the hill, but watching a deerstalker is not only an

experience, but also your chance to watch and follow possibly the finest form of stalking. The relevance of stalking to the airgun hunter is an obvious one – a basic part of field craft and one you'd always do well to learn more about.

But a word of caution is timely. When you've been lucky enough to be invited as a guest on to a shoot, it'll probably be pointed out to you, but don't ever presume that you can go back unaccompanied unless you are specifically allowed. Don't take it for granted that you can 'nip on' once in a while. Hopefully, it will mature into a fully-fledged shooting opportunity and relationship, but be patient. Let your hosts weigh you up, and let them dictate your progress into their shooting world. It's all too easy to blow these opportunities due to over-eagerness, and remember that the shooter who first invited you to join him will probably have spent years gaining the trust of the farmer or landowner. He'll certainly have earned his right to shoot, so be prepared to do the same. Always respect those chances to shoot on 'borrowed land', because soon it may be a place where you can go and shoot on your own.

This is even more basic, but before you even take your first shot against quarry on a shoot remember that it's your responsibility to be able to identify all legal quarry species in a variety of different situations and from even the most obscure angle. In fact, a handy saying that has served me well and is worth remembering when out hunting is this – 'If in doubt, don't shoot!' Finding a shoot can be difficult, but one thing's for sure: when found, you'll have damn' well earned it!



7

Observation and Quarry Location

As a hunter, I used to believe that to be out in the field without a rifle was about as much use as going fishing without a fishing rod. That was until I became involved in wildlife photography and from there on I began my ongoing learning curve and understanding of wildlife behaviour. Not only did I learn the comings and goings of quarry deemed suitable for the airgun around the shoot, but about animal and bird behaviour in general, and I can now say that time spent just watching animals will pay the dedicated shooter back ten-fold.

This is of such importance that I'm going into detail on how to observe properly the land you intend to shoot over, no matter what hunting technique you employ at a later stage.

Observation can be as simple as leaning on a wall looking over the fields, or sitting or lying in a comfortable concealed position or hide studying a particular hedge-line or group of trees. As I said earlier, getting to know a particular area usually entails many hours spent out there, preferably without your rifle, but using your eyes and ears. In other words, simply looking, listening, observing and learning. If you wonder why I'm stressing 'you leave the rifle at home', it's because it will be all too tempting to shoot quarry that comes close, and while this may bring 'instant results', it may just as likely be the reason that there's little or even no quarry in that area should you go for a full campaign at a later date. Without a doubt, observation is one of the most important but often overlooked factors that contribute to successful hunting. This preparation really is the key to hunting success and, to borrow a biblical quote, you'll eventually be able to 'reap as ye have sown'. Even just meandering

around with your eyes and ears open is a start, but ideally you should be much more methodical in your approach to observation.

Map it Out

Following on what we considered in Finding A Shoot, take into consideration that once you've secured that elusive shooting ground you should also make yourself fully familiar with its overall layout by walking the area, and noting all the specific features that may be of interest to particular quarry. In Quarry Files you'll be given information to help determine which animals inhabit which types of terrain and what areas of the land. Pick out these key areas, and lie up under camo or in a suitably hidden position to watch and learn. Granted, at times it will seem boring, but at others very interesting and eventful; and try to learn from everything you see, including the animals and birds that aren't on your hit list. These too will be using an area of the shoot for reasons associated with your quarry. Usually it's because the area is rich in foodstuff, is relatively undisturbed by man, or both. For animals, a combination of the two will represent a safe place.

After the first few visits, draw up a map of the area you are allowed to shoot over. Obviously, you don't need to be a master cartographer, but don't think you can get away with just making a quick sketch on the back of a beer mat! Use at least a decent-sized notepad while out walking around the shoot, and transfer this in the comfort of your own home to an A4-size sheet of plain paper. A Dictaphone is also a good aid for keeping verbal notes, and much easier to use than continually scribbling on a pad of paper – especially if it's raining or your fingers are numb with cold. As for the map itself, make a few photocopies of it as standard maps. Then, when you've got an idea as to which quarry species are active in certain areas, mark them on one of the copies using symbols or name abbreviations. Then it's easy to keep them regularly noted by using a clean sheet to amend for any change in quarry activity or locations. The map will need to be updated every couple of months or so, depending on your particular area, the time of year and of course how often you go shooting.



Locate a particularly 'favoured' sitty-tree and you could well find yourself with a steady stream of potential targets

The main priority of your map is to show the boundary, which should clearly indicate the perimeter enclosing the area where you are legally allowed to shoot. Unfortunately, at least part of the land probably won't be nice and neatly fenced off. The boundary could be a stream, an old broken wall, a small tree line or even a ditch. Even at this early stage, make a note of these permanent landmarks and features that clearly define the limits of your shoot.

Once you've established the boundary on your map, you can then start to mark in the places that will be of interest to various quarry species – which are, of course, the places that you should also make your first target areas. Begin by marking any wooded areas, no matter how small, and even if they are only a couple of trees standing together. These could well prove to be what are known as 'sitty-trees' (trees used by birds for perching to rest or watch the surrounding area before moving on), that – if approached stealthily, or better still to be hidden up by, within range – could well see you bagging a few pie-filling woodpigeons, or ridding the

land of a bonus nuisance corvid or two once your hunting begins in earnest.

Just Watch

Note down areas that may be appropriate for siting a hide, which will be useful when you've mastered hide-building, the technique of which will be outlined later, and any other spots that offer you natural cover for ambushing and laying bits. All these specific hunting styles will be dealt with in the relevant chapters, so rest assured that you'll be well informed and prepared when the time comes to put it all into practice.

Once you've made the map, do keep it regularly updated. By this I mean keeping notes on where you've seen various species. For instance, this may include rabbit activity (e.g. droppings, runs, burrows), or maybe you're lucky enough to have an area of woods used by quarry birds for roosting. Even if you haven't, you're likely to have times when birds will fly over your area on the way to feeding areas or back to roost sites. These, when established, are known as flightlines, usually of woodpigeons but crows also use regular flight paths. You certainly won't be able to shoot them on the wing as the shotgunner can, but you can tempt them down on to the ground using decoys, or for the corvids a carrion bait. Also, many forget or don't realise that birds, as well as having flight lines, also have regular stop-off points along them. These are usually the sitty trees, areas to feed, drink, rest or even to await others of their kind before moving on – usually and unfortunately out of your allotted shooting area.

Take time and trouble to prepare yourself properly, and don't underestimate the importance of reconnaissance. An absolutely invaluable piece of kit is a pair of binoculars. A good pair of compact binos, e.g. with a specification of 8 x 21, are light and extremely handy to carry at all times. If waiting longer, then a pair with larger magnification and larger front objective lenses will be less of a strain on the eye. Incidentally, whilst I prefer a monocular while shooting as it's smaller, compact binos are a good compromise for using if you're doing a bit of reconnaissance and shooting. For more serious use then a larger pair of binos is the optimum choice. You can even get them in camo!

Creatures of Habit

Now we've established that animals – and especially birds – have set behavioural patterns which they generally stay faithful to, according to season, come spring, summer, autumn and winter. They do say that only mad dogs and Englishmen go out in the midday sun, and they should say that only mad airgun hunters go out in potentially bad weather conditions, but sometimes, taking a chance – and as long as the weather isn't forecast to be extreme – to wait up in ambush in the right position can be well worth the effort. This is because crows and magpies seem unbothered by inclement weather, and even during lengthy spells of light drizzle they move around pretty much as normal on their daily routine. Heavy rain, though, is often the cause of birds disappearing into the woods, and animals, especially rabbits, sitting well under cover out of sight. The point is that weather can and does affect how an animal's behavioural pattern changes, but, like us humans, at some point they will need to feed and drink. So, in general, certain animals or birds use some areas more than others for food, to rest and, in the case of the weather, to find shelter. Knowing this and using it to your advantage will put you in the right place at the right time.

Some areas are certainly heavily frequented by wildlife because they are secluded or relatively undisturbed by humans, and only prolonged observation of the shoot will reveal key areas such as this. For instance, with a flock of birds such as woodies, crows and jackdaws, their stop-off points could be a clump of trees in the middle of a field, or a quiet corner of the field itself, where they might only be grubbing around looking for an early feed or late snack. Whichever the case, and I again stress the point, be there at the right time and it could well be their last supper! Correct, dedicated observation and preparation quickly show just how important they are to successful hunting.

Look also for nest sites (in winter, when trees are bare) that betray the areas frequented by magpies, crows and rooks. Corvids return to the same ones year in, year out. The magpie's nest is unmistakable by its football shape, whilst the rookery will be obvious by its sheer number of nests, and is often heard before it's seen. Crows, though usually in paired

twosomes during nesting time, are just as likely to be found nesting in loosely grouped colonies rarely exceeding half a dozen nests – a sort of ‘crowery’, as I like to call them. These tend to be found in twos or threes, with a few in the same tree, quite high but certainly not as high as rooks’ nests. Whilst these birds build in the very top of the tree, entwining their bulky structures around the small twigs of the treetops, crows favour the clefts of branches for a more stable base. The same applies to squirrels’ dreys, which are often mistaken for crows’ nests. The drey, however, is shaped like a small magpie’s nest and will have more leaf litter in the structure. Squirrels like their own space so the drey will be on its own, and in a position that allows them good views of the surrounding area. Look, too, for the smaller ‘nut store’, once thought of as fanciful; but a squirrel in an established territory can use an old drey above or below the new, usually larger drey to store food. But enough on dwellings and nests, as this is just an example of what you can find by keeping your eyes peeled and knowing what to look for. In-depth quarry behaviour will be dealt with in suitable sections devoted to the individual quarry species.

The best times for watching for signs of activity are usually early morning and late evening – and not surprisingly, these are also the optimum times for hunting. When you walk around your shoot, looking for signs of life, it’s very important that you go at the times you will be intending to hunt in the future. It’s no use you being in the right place at the wrong time, so to speak. In relation to this, if you do spot areas used as stop-over points or sitty trees, note down the time the birds are more often there. It could well be a relatively small localised group only stay for 10-15 minutes in that area at the same time each or even every other day. Then again, locate a particularly favoured sitty tree and you could well find yourself faced with a steady stream of potential targets and be able to reap the rewards if waiting in a carefully chosen shooting position.

There’s no way I can advise which quarry species you should target first. Obviously, most hunters want to get stuck into rabbits, because that’s something for the pot and in many areas abundant enough to be bagged in good numbers, but the initial recces of your shoot should already have indicated what is where, and what is where most often. Young guns should start with rats. That’s how many of us started, and

even now every time I go ratting it seems to bring back a memory of a trip from my youth, but remember, in those days we could largely go where we wanted. Restrictions on airgun use weren't as draconian as they are now, and many a session was spent walking up the cut (canal) on a summer's evening potting rats on the opposite bank or towpath. Today, the newcomer will usually find a shoot with a good few rabbits and certainly woodies and corvids.

If there are trees, then squirrels will also be on the list of possibilities, and for some reason they can be quite oblivious to your presence and the threat you pose to them, at times – that is until you've started to make serious inroads into their population! This is when another major skill comes into play, which is fieldcraft, and knowing how to get within range or fool the quarry; and also knowing when to leave a particular area undisturbed for a while.

This might sound like a complete contradiction in terms, but almost as soon as you start over a new shoot you should be considering which areas to rest (stay away from) first. No hunting ground has an unlimited supply of suitable quarry. Granted, there are areas that seem plagued with rats, rabbits and crows, but you'll be amazed how, at the slightest disturbance, that very same area can soon appear to be devoid of all life. Of course, if you haven't been there on a major pest control cull they'll probably still be there, and in good numbers. They'll just be more wary or even have moved to a safer spot. Sod's law intervenes again, as often that safe place will be somewhere you aren't allowed to shoot. Experience will show you when it's time to rest an area, but it will probably be blatantly obvious, because you'll not see hide nor hair of anything, even at the most opportune times and in ideal weather. It's called conditioning, and the animal responds and reacts to adhere the basic rules of self-preservation in the wild. The importance of 'rotating' your shoot, especially in relation to the time of year, can often be made simple by looking at the options each season brings. This 'airgun hunters calendar year' – as it can aptly be termed – can be very useful in order to know what should coming soon, or be just around the corner in terms of monthly behaviour in relation to shooting opportunities.

Preparation and General Fieldcraft



Rabbits betray their presence in many ways – none so obvious than rabbit holes into well-used warrens

No matter what the hunting method, the hunter must have a plan – even if only a very basic one. In fact, all successful hunters will follow a generally similar line, and this applies to airgunners just as much as to deer stalkers. Depending on the weather and time of year, you'll have to plan according which areas are most likely to be the most productive. For instance, ratting can be a very slow affair in winter, and in some cases useless unless shooting indoors and where such enclosed areas are relatively warm. Alternatively, rabbits can be out of their burrows for much longer in mild and warm weather, while on very cold or hot days they're either holing up underground or relaxing in a hidden sun-trap. If it's raining your best target quarry species will be of the feathered variety that will be seeking shelter in trees and hedgerows which afford a decent canopy of foliage from the elements. If it's windy, then look to the

leeward side of the woods, especially for woodies and crows. But even with the best laid plans, things do at times have a tendency to go pear-shaped, so do have what the army would call a contingency – i.e. an alternative back-up plan.

For instance, if you've been keeping your eye on the weather and you've noticed plenty of signs of rabbit activity around a certain area, and even if all seems fine for an early morning bunny bash, you should still be prepared to have another area pencilled-in to target. In other words, have a few decoys and extra camo net in the rucksack and at the ready should you get rained off. It could well be that moving to another side of the shoot will bring down a few woodies, or bag a few sheltering from the rain should you scour the outskirts of a wood. Remember, if you've been sitting near a warren, even if the weather has been ideal since early morning, and nothing has stirred, it could well be that in the small hours ol' Reynard has been out and about running rabbits into burrows, and more than likely nabbing a few overnight for himself. In fact, foxes can leave an extremely distinctive aroma – trust me, because you'll know it when you smell it. If even we humans can detect this, with our limited sense of smell, just think what it must be like to a rabbit – a veritable aromatic air-raid siren! Knowing when to move and change the original plan is possibly one of the hardest matters for a hunter to master. Experience will certainly help you decide on a move, but even now I've lost count of the times I've thought, sod it, there's no way any pigeons are coming down to a decoy pattern' and then, sure enough, I emerge from the hide just as a flock has started to come in to the pattern. Sod's law, I think that's called!

Quarry Location

Walk along any public footpath and you'll see clear indications of where and how recently a walker has been that way. Unfortunately you're just as likely to find litter, which definitely is a sign that humans have used the route; but this amply illustrates how all creatures leave signs, indication and 'calling cards' that they've passed that way. In the case of humans and litter it's inevitable, alas; but hunters should know the

country code and never act so irresponsibly; but back to the quarry we seek and the tell-tale signs to read off the land.

Each specific quarry leaves a part of itself or some other indication that it has used an area, and rabbits are the most obvious. Runs, holes to warrens, gaps under square wire-fencing mesh, hair on low barbed wire or the ground, scratchings in the soil or 'scrapes', nibbled grass, bare patches in grass due to heavy urination, bark stripped from the base of trees and shrubs, and of course paw prints. In the heart of a warren, where entrance and exit holes are most abundant, if the warren is heavily populated the surrounding grass and earth will even smell of them! In fact the smell of rabbits will permeate from the burrows – what a temptation for the local fox population!

Squirrels also leave marks of their activity, and usually these are the teeth marks where they, like the rabbit, have gnawed away to keep their ever-growing incisors in check. Similarly, rats are just as big if not more of a nuisance in this respect. Woodpigeons and other birds leave their white droppings on leaves under sitty trees; you'll see the stalks of berries where the fruit has been plucked off, and downy feathers caught on brambles and around trees means the woodie has been there. Spent kernels, half-eaten nuts, berries, etc. scattered on the ground below can also be signs of squirrel activity, and these are just a few of the signs to look out for as you walk your shoot for observation purposes. All living creatures leave evidence of their activities, whether it be tracks, droppings, ground disturbance including scrapings or 'runs', and, of course, their dwelling, be it nest, hole or burrow. It's essential that you know the general type of terrain where these more specific calling cards can be found.



Rabbit droppings



Fresh soil outside the burrow – obvious sign of recent rabbit activity



Discarded husks and empty shells



Nibbled fir cones – obviously the doing of squirrels



Classic rabbit damage – bark nibbled and stripped at the base of this sapling



A chewed hole in a feed hopper – typical squirrel damage

This is fieldcraft at its most basic. Always keep in mind the main elements that your quarry needs to live and thrive. Think like them, and you'll soon be finding the areas they favour. Locating quarry isn't an

exact science, but more a case of common sense and a little applied detective work.

Birds and animals differ in two main respects when choosing to hole up. Birds favour areas that afford shelter from the elements and, just as importantly to them, a good view of the surrounding area. The only mammal that also does this is the squirrel because, like birds, it is mainly a tree dweller. The rabbit, the main mammal quarry species for the airgun hunter, isn't worried about holing up in an area it can observe from; instead, it relies on its deep, safe burrow for protection. All woods will hold birds and sometimes squirrels, and most farm buildings will also appeal to birds such as collared doves or feral pigeons – and often rats.

Here are ten things to look for when locating quarry.

- Animal tracks and well-worn natural paths. Obviously this relates mainly to land animals such as rabbits, rats and to a lesser extent squirrels.
- Half-eaten discarded foodstuffs, empty fruit or nut shells, and droppings.
- Burrows, holes, scrapes, and runs.
- Nest sites, old and new.
- Squirrel dreys and (although harder to spot) the smaller nut stores built from twigs.
- Freshly cropped (nibbled) grass and crops. Crops broken by wings and 'strimmed' by birds eating from the outer edge into the field.
- Scratch marks and partly-stripped bark.
- Tufts of fur or remnants of hair on low barbed wire and brambles.
- Watch for regular flight lines and roosts.
- It may sound obvious, but look out for the animals and birds themselves, as well as listening for their calls and other noises.

Basic Instincts

At the risk of stating the obvious, every wild animal is driven by basic instincts which include the need to find food, water and shelter. The latter varies in accordance with the species and the conditions, but generally during the day an animal may seek shelter from either danger or the

weather. Alternatively, it could be to digest food and, especially in the case of birds, a place to rest – i.e. their roosts in the evening. These, plus the drive to procreate (again depending on the seasons) are its basic survival instincts.

Feeding areas are chosen not only because they are rich in the appropriate foodstuffs, but also because they allow the animals good visibility of their immediate surroundings. In other words they feel safe. For these reasons, certain safe, food-rich locations become regular, favoured feeding grounds. So – find this, and you'll find the quarry. There are a few exceptions to the rule because, at times, quarry can be uncharacteristically clumsy and carefree when it finds food. Typical examples are when woodpigeons are competing with others of their kind and crashing around in the trees gorging on ivy berries, but the same rarely applies to the birds when feeding on the ground. Similarly, a group of magpies squabbling over a rabbit carcass can be totally oblivious to a sniper in a well-chosen position. Carefree and careless to the point of foolhardiness, they often don't realise that their numbers are diminishing with well-placed shots as they bicker and compete for the tastiest morsels – the rabbit's eyes.

As for feeding areas, locating these is usually the easy part, whereas getting within range of the quarry using them is quite another. This is where the hunter needs to use all his fieldcraft skills to enable him to get within effective range. As mentioned, food is the main driving force at all times of the year for all wild creatures. Whether it is to satisfy their own hunger or for rearing their young, finding and gathering food takes up a large part of their daily (and sometimes nightly) routine. This is when thorough knowledge of your particular shoot pays dividends. Knowing the seasons, which fields have just been sown, which wild fruits and berries are likely to be ripening, where nuts and acorns will be falling etc., are all basic requirements for quarry location. Most of this knowledge can be obtained first-hand if you are a country dweller or spend a lot of time on your shoot, but most don't have this luxury, and even those that do will benefit from obtaining good reference works on countryside flora and fauna. These should include naturally-growing trees, shrubs and seed-bearing plants as well as farmed crops – grasses, cereals, vegetables and tree plantations. If you have a good rapport

(which you should) with the farmer who owns the land you shoot over, even though he's a busy man, when you get the opportunity, do pick his brains. Ask him at what time of the year he seems most pestered with certain species. He might not know the specifics, but he will be able to tell you to the week what has been sown, where has been or is to be ploughed or cut – and he'll also tell you what he can expect to see in and around that field at that time and immediately afterwards. Another tip is that even if you don't own the necessary paperwork and an appropriate rifle to shoot foxes, still listen to what he has to say about their movements. If they're seen regularly in a certain area near a specific warren you know it may well be that those rabbits are getting seriously thinned out or ultra-twitchy, and certainly worth considering as an area not to concentrate your precious time and effort – at least until the foxing lads nail that particular Basil.

Reference books are important, and I still enjoy reading this sort of material. To some it'll seem like an unnecessary task, but do make the effort. Then you'll be able easily to identify nuts that have been nibbled, pine cones that have been stripped and the shattered shards of beech mast – and, more importantly, by which species. A book I can highly recommend for this is *Nature Detective* by the renowned naturalist and countryman, Hugh Falkus. This particular book is excellent for identifying tracks and other clues as to what has been going on when you are away from the shoot. There are many other very good books on this subject, so the words 'library' and 'go immediately' apply!



Rabbit runs are well-used pathways that can run for quite a distance between burrows and the animals' feeding areas

Just as there are seasonal feeding areas, so there are also those that are sources of food for living creatures all year around. These are the grain stores, domestic animal feed troughs and other food sources around farm buildings. Rats soon learn that pigpens and hen coops contain a ready supply of free handouts. Likewise, grain storage and distribution points are a magnet to collared doves, woodies and feral pigeons. Early and late in the day you can be sure that one or more of these quarry species will

be paying a visit to such places. Corvids, of course, are never far behind, just usually a bit more cautious; but in some parts of the country the jackdaw can be as brazen as the starling in its search for food amongst the sheep and cattle feed troughs, both indoors and out. These are the man-made feeding areas, whereas the natural larders are the other main areas to look to, because this is where your quarry is going to feel safest, in its own habitat.

Another requirement for all creatures is water, and both animals and birds have their own favoured sources. This could be a pond, stream, cattle trough or even just an area of ground that regularly becomes waterlogged. Personally, I don't favour specifically targeting these unless otherwise advised, as I haven't found them very productive in the short term. However, if you're the very patient type, lying up in ambush near one of these could well produce the goods, especially during times of low rainfall.

Gimme Shelter

Like humans, most wild creatures – especially birds – don't like being out in the wind or rain if they can avoid it. Therefore shelter is another major factor on your quarry's list of priorities. A cold, wet animal can soon find itself in difficulty, so whenever possible they avoid getting themselves into that state in the first place. There are two types – temporary weather shelter during the day, and roost areas at night. On a windy day it's virtually certain that quarry such as pigeons or corvids will be on the leeward side of the woods, and even more so if the wind is driving a significant amount of rain. Although the hunter may not be particularly fond of being out in such weather, the one who does is more than likely in for a productive foray – assuming he's done his homework – and with the quality outdoor wear now available there's no reason it should be a hardship. It's also worth noting that after a good blow in autumn and winter the woodies and squirrels are often found rooting around in the leaf litter for fallen goodies. There is more of this in the chapter on seasons, but in damp, drizzly weather both these species – especially woodies – can also be found perching much lower down in the trees. I'm sure this is to keep the rain off that would soon soak them

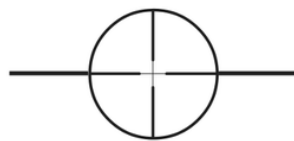
should they stay high in the uppermost exposed branches. Crows seem to be able to weather the rain well, as the water runs off the glossy black plumage.

Rabbits are notorious for their dislike of rain, but if it's not too heavy look for them along hedgerows and stone walls rather than out in the exposed open fields. The same applies when targeting them at night. The leeward side of the wood is also the warmest area, and appeals to them. The denser the tree growth the more sheltered and cosy it is, and, on the subject of wind, I've found that cold north and north-easterlies early in the day are the kiss of death for a good airgun hunting session. So pay attention to the weather forecast the night before your proposed outing. I know they're not always spot on, but wind direction and the movements and localities of cold fronts are usually dependable. This relates more to winter shooting, of course, but it can help you choose your optimum shooting time. If the forecast is for a drop in temperature and a cold front sweeping the country, or your particular area, you can be sure that the creatures of the fields and woods are out feeding, knowing that leaner times are just around the corner. In other words, try to be there when they are, and not when they've gorged themselves, at which stage they go and find the nearest shelter and sit out the bad weather to come. Squirrels in particular seem to know just when to be out eating, so as to be tucked up snug in their dreys once those biting winds pierce through the trees and soaking rain sweeps with it. Wind direction might not seem so important, but in relation to your particular hunting area it can make a lot of difference. In some areas such as mine – the grim North-West – a west wind coming off the coast will bite hard, whereas a warm inland breeze could well heat up the surrounding area, even in winter, if the temperatures haven't already dropped too low.



No matter what hunting technique you employ – observation is always the key to success

It follows that when the weather is adverse, look to areas that afford shelter, as the quarry won't be keen to feed in these circumstances, unless driven to it by necessity. However, should the rain subside and the sun come out, their thoughts will turn to food and your attention should again therefore be turned towards the feeding areas you've found from your time spent observing previously. As we've seen, finding your quarry is mainly common sense, and not a science.



8

General Fieldcraft, Camouflage and Clothing

Despite all the hype, you don't need to wear the latest hi-tech camo pattern clothing to start hunting with an air rifle. Having said that, effective camo will have a dramatic effect on your performance in the field. Whereas you can certainly hunt with some degree of success in drab clothing, or preferable the military DPM (Disruptive Pattern Material), I'm a firm believer that the modern, new-era camo wear definitely does give you the edge when it comes to fooling your quarry. Camo clothing isn't the be all and end all, and that's one reason why this chapter deals with general fieldcraft in association with camouflage and the various apparel that is now readily available to conceal us. I'm approaching this subject in this way because camouflage is of little use if the wearer doesn't know how to move and act in the field. You'll also notice that the term 'camouflage' links with the word 'concealment'. You may think they're one and the same but, by definition, camouflage loosely means, 'to make something hard to see or interpret', whereas conceal means, 'to hide or make something secret'. Consider those definitions and the next descriptive usage of words will be more useful in helping you to understand camouflage in relation to what it is used for and the intention behind its use. In other words, we may hide using camouflage to help conceal us, but camouflage by itself cannot totally conceal us, although it can make us less noticeable if used correctly.

Camouflage works because it creates visual confusion. It disguises the recognisable human form by blending the mass or shape of the human body into the surroundings and to some extent by breaking up your outline. The need for effective camouflage clothing for the airgun hunter

is obvious, because the rifle used has a limited range, and the hunter needs to get within close striking distance so that the shot cleanly and humanely dispatches the pest species targeted, but camo wear is an aid to your concealment, and not a cloak of invisibility. Getting within range also requires fieldcraft, which in part involves camouflaging the body so that you can move across land without being detected. This is a major skill that will be continuously mentioned and explained throughout this book as we come to various situations where it is needed. To be thorough, at the end of this chapter there's a piece that charts the development of the new generation of hi-tech camo patterns that are now so popular and readily available.

Nature's Own

Animals, and to a certain extent most birds, have a distinct advantage in the fact that they have a natural outer protective skin (fur or feathers) of a coloration that helps them blend into their habitats. Naturalists have concluded that brown is the most common colour for any form of wildlife in the natural world. Similarly, and more obviously, green is the predominant colour of foliage plants, but also including brown and other similar earth-toned colours of a darker hue relating to the surrounding cover plants, and depending on the season.



This is taking it to the extreme but camo is an invaluable aid to the airgun hunter

In relation to our main quarry species, we can immediately look to the rabbit as a direct indication of how effective brown actually is in helping an animal to blend into the great outdoors. Just try to pick out a rabbit against a dark background such as an earth bank, under a hedge line or general ground cover. Even amongst a relatively strong colour of green foliage such as grass, if the rabbit remains motionless it can be very difficult to spot with the naked eye from a distance. A situation such as this reminds us how limited our senses are, but thankfully, optical technology gives us binoculars of such quality that we can scan areas we'd otherwise not be able to look at, or survey from afar. Even then, as we scour near a hedge line or taller rough grass at the field's edge, often only the pale creamy colour of the animal's inner ear gives its presence away - and then only if it twitches them a few times. So, whereas the green used in camo designs is obvious, you can now see why brown (an earth tone) is still used widely as a base colour for many modern designs. Backtracking slightly, note the use of the term 'motionless', which brings

us to another and possibly the most important factor relating to good concealment, and that's movement. For both quarry and hunter, movement is the biggest giveaway. Next on the list after sight for the human predator is sound, and then smell - the latter two changing in importance depending on the quarry species targeted and how far you are from the target. You may think I've used a strange description, but that's what we are when we're hunting – we are predators, and it is like a predator that we need to think and behave so as to bag our chosen prize. Humans aren't naturally coloured to blend into their surroundings. Strip us naked, and unless we have a few bob to spend on frequent exotic holidays we're mostly a pasty white. Okay, maybe I speak for myself, but I think you get the gist. In society, we wear clothes for decency, modesty and warmth, whereas in the field we wear appropriate clothing that not only protects our rather fragile outer skin but also keeps us warm and dry. As hunters in particular, we use clothing with a suitable colouration to help to conceal ourselves.

The optimum words there being 'help to conceal', as other factors come into the equation such as light values, angle and direction of the light which depends if the sun is low or high in the sky, not forgetting if it's summer or winter. This may appear to be a conundrum but all will be revealed (almost literally) as the chapter progresses.

Military Man

For sport shooting, camouflage clothing was originally adopted from the Army, firstly because 'used fatigues' such as combat pants and jackets were readily available from army surplus stores and established mail-order companies. The bonus was not only the hard-wearing nature of the material the clothing was made from, but that the material was in the army's long-used and effective DPM (Disruptive Pattern Material) camouflage - in other words it was appropriate, rugged, weather-resistant clothing in a suitable blend of colours and pattern. The army have long known the importance of effective camouflage in relation to their person, their kit - including weapons - and even vehicles. In the history of warfare, we can see how the armies of the world first saw a distinct need to have specific patterns on battledress. During and shortly after WWI,

the armed forces of most countries developed their own camo designs, mostly based on standard issue khaki. There are many variations of these camo patterns, as different countries have different foliage and terrain specific to their regions.



Being hidden isn't just about the camo you wear but also how you use the terrain as you hunt

Also, due to the fact that battles can and would possibly be fought even in arctic climates, the British Army saw the need to develop patterns to suit all eventualities they might face some day. This was the reason we saw the widespread issue of the familiar DPM for use in temperate European surroundings. Other types include designs of jungle, desert,

and urban camo. Interestingly, the original Laksen camo (the Swiss Army camouflage) was once quite popular with UK hunters. This is neither a copy of foliage nor fauna, but rather an amalgamation of dappled, coloured blotches. This is a good example of a camo that's effective; not due to directly imitating the foliage in which the hunter is operating, but because it uses the disruption and blurring of the overall image of the human shape to achieve the desired effect. A pattern that uses this same effect is the German Flecktarn camo. Of the military patterns, it's long been established that British DPM, French Central European and US Woodland are the best suited to the countryside environs of the UK.

In relation to camo for hunting, certain forward-thinking individuals had noticed that army issue camo wasn't suited to some terrain. Indeed, whereas DPM confuses the eye, the new age designs - often termed 'photo-realistic' - actually imitate your surroundings. It was this basic idea of imitating the surrounding foliage that spawned the glut of hi-tech, photo-realistic camo wear that the UK hunter from the beginning of the Millennium back then, and through various new designs, has to choose from even now. Many will be aware that it was in America that these designs originated, the most famous being the first Advantage[®] camo pattern, which was readily adopted by hunters and outdoorsmen. This pattern was designed by a hunter himself, Bill Jordan, and has grown into a worldwide phenomenon in hunting and eventually in the UK amongst specialist anglers, to becoming a billion dollar industry that is moving ever-forward in the new designs it offers. Another, but less popular camo, and one of the first alternatives to DPM to enter the UK, was a camo pattern called Mossy Oak, and there was also Trebark – launched here at the time as Superflauge.



The hunter, if using the right camo design, can blend into even the most sparse of surroundings

Back in 2005 I stated: ‘It’s hard to predict how this type of camo clothing will progress. New patterns will emerge, but I’m sure we’re reaching a peak in terms of optimum colour blend and effective pattern type, if we haven’t peaked already.’

Well, in hindsight I don’t feel I made that bad a job of predicting how camo patterns would progress. New ones emerged, some ‘came, didn’t sell as well as expected and they were gone, but another design soon followed that was of more general appeal. Not surprisingly, it was Advantage/Realtree who always maintained a strong presence here in the UK; after a relatively lengthy hiatus they eventually came back with a vengeance, boasting new patterns such as Realtree AP (All Purpose and APG (All Purpose Green). Then, of course, we have the HD (High Definition) variants thereof. Currently, as I write, Realtree has launched Xtra Green, and Realtree Xtra. Both are seasonal patterns, the former being a summer design the latter being autumnal. Their biggest rival, if that’s the correct term to use, is Mossy Oak and they have not been idle as they came back relatively recently with Break-Up Infinity, Brush,

Obsession and a incredibly realistic 3D variant of their Shadow Grass pattern called Shadow Grass Blades.

With the amount of other clothing design giants now pitching designs into the arena, particularly the Scandinavian-based companies, it's now a very saturated market. Danish clothing giants, Deerhunter, initially launched the 'Innovation' camo pattern in an attempt to pry loose of having to pay 'under licence', always to use the established and most favoured, known camo designs from Advantage/Realtree and Mossy Oak. As I write they're championing a very interesting new camo called Equipt. They claim pixilation of the colours almost blurs the garments; jacket, trousers etc ... to break up any outline, and therefore help you blend in with your surroundings. There is now much debate over which is the better option, photo-realistic camo patterns or those that are termed as digitalised. These patterns are generated by computer software that calculates all colours in the general outdoors without allowing the pattern to be terrain specific, therefore being more versatile in its use.

A company who stand out or 'blend in' you could say that do need mentioning because they were the first UK company to design a pattern specifically for the autumn in particular the Autumnal Woodland and areas where bare leafed hedgerows met equally barren looking fields, is Jack Pyke of England, who took the bold step and launched a pattern called 'English Oak'. A mix of brown leaves with dark to slightly lighter brown shades, broken up by branches, twigs and autumnal foliage that is highly effective. This was followed by a summer pattern when the woods are in full leaf and the hedgerows and fields are in full greenery. This was 'English Woodland'. Their first design actually outsells the latter as it is still a favourite with UK airgun hunters for the seasons of bare cover. They released yet another camo pattern known as 'Wild Trees Grasslands'; a pattern suited to marshland with its mix of reed stems and bulrush heads, wild rye grass stems and lighter foliage mostly found in such areas. To a certain degree, I feel it fills a niche for use while hunting near certain terrain. The blend of foliage mentioned is very terrain-specific but I can see its usefulness, when the seasons change and certain areas where hedges, fields and particularly moorland look barren of any specific colouration. So too, when the stubble fields start to look bare of any colour as the cut crop stems die back. They now have a wide range of

apparel available in all three patterns. Also, in my opinion, they've designed a unique system of clothing, best described as a hybrid ghillie suit/mesh oversuit with what is termed 'edge relief' (die-cut leaves that break up your outline, which is also used on certain camo netting and pop-up hides). Their LLCS (Loose Leaf Camouflage System) is available in both English Oak and English Woodland. Both patterns work remarkably well as long as you use them correctly - i.e. don't forget fieldcraft. They also market separate strips of very realistic die-cut leaves which you can wrap around and secure to your rifle using No-Marc tape. If used accordingly, you can almost reach invisibility if staying static and in the right terrain that the pattern is designed for.



Loose-leaf camo systems such as the LLCS build-up system are extremely effective when used in the right circumstances

Scandinavian manufacturers such as Harkila/Seeland have begun to design their own camo patterns and it's here we see the change, as these use what can be termed a 'colour blend' found in nature. You could say these designs are a modern alternative to DPM! Most notable patterns are X-Invisible, Erase XT, Opti-Fade, with others even as I write being talked of. Also, JahtiJakt's (yes you read that right) own design, 'Invisible', camo pattern is very popular, but this isn't a book devoted to all camo patterns so I have to leave off at some point and here's not a bad

place to do so. I leave by mentioning that infiltrating the hunting scene, we are now seeing military patterns such as the Multi-Cam, designed by Crye Industries for US Armed Forces. It's described as a 'digitalised non-terrain specific camouflage.' First indications are that some clothing manufacturers are offering it to civvy street, but the general airgun-buying, cam-clad hunter isn't stampeding towards it or others of its kind.

Mix 'n' Match

I'd taken a personal interest in camo long before the new-age designs arrived, having been experimenting with military patterns as diverse as urban camo and desert camo, and they proved very usable. In hindsight, it seems my findings have proved interesting because the base colours of these patterns are browns (desert camo) and combinations of greys and black (urban). It came as no surprise that brown would become a predominant colour for many new commercial patterns, not only because it's a natural colour in nature, but also because my experiences with different army camo showed this. When the early Advantage[®] pattern arrived, with its base brown colouration, I wasn't surprised at its effectiveness. I also remember thinking as soon as I saw Realtree Hardwoods[®] 20-200, a pattern largely made up of dark colours including greys, browns and even black, that it would prove very useful. It did, and the rest is history. So my experiments and findings had shown that I was at least heading in the right direction in my thoughts on the colours most beneficial for camouflaging myself in the field. Even now, I'll mix-and-match different camo designs in my overall kit. For instance, camo that's predominantly heavy with browns and darker tones suits the woods, and certainly if sitting amongst leaf litter it's wise to wear suitable camo trousers of, say, a bark and leaf litter heavy pattern such as Advantage Timber[®] or Xtra Brown, and of course English Oak – a highly-effective design for the autumnal woodland..

However, because the foliage growing from the ground up is often ferns and suchlike, it can often be wise in certain instances to cover the upper body in a green-based camo, such as the older designs of Realtree

Hardwoods Green[®] or Mossy Oak Breakup. Interestingly, the American manufacturers themselves recommend this mix 'n' match approach.

Another factor that should also be considered when matching camo to terrain is the angle from which your quarry is likely to spot you. If shooting up into trees, ambushing birds coming to sit in trees, or roost-shooting then, as you're concealing yourself from eyes above your position, a more uniform, darker hue 'branch and bark heavy' autumnal - coloured camo pattern suited to the leaf litter and woodland floor is the best option. The reason is that you'll probably have your back to a tree trunk, green foliage will most likely be sparse, and you'll also probably (and preferably) be amongst the shadows; and remember to keep your pale hands and face covered with suitable gloves and a face veil.

This illustrates the importance of carefully considering your shooting position and studying the terrain you normally shoot over, and then tailoring your camo to suit. As the seasons change so does the foliage, so a hunter should change and adapt his camo accordingly. There are many permutations for this mixing and matching concealment technique. I'll often wear DPM Gore-Tex[™] over-trousers because I'm sitting on wet grass or foliage, while my jacket can be anything from Realtree Hardwoods Green, Advantage Timber, or a Mossy Oak pattern. Whatever suits the conditions and helps me to blend better into the surroundings is what I'll wear. It is also worth mentioning that the US duck hunters' one-time favourite camo, Advantage Wetlands Camo[®] was probably one that got the least interest from the UK shooting fraternity, especially airgun hunters, but I found it very well suited for the autumn fields and conditions when ground foliage has died back around tall wild grass stems, and sparse hedges if I was keeping close next to the edges, especially if stalking near the barren-looking stubble fields. Maybe this is the niche that Wild Trees Grasslands will fill.

There's also the Advantage[®] Max-4 HD[™] pattern to choose. Although it sounds like a computer game, this camo with its brown/ochre base overlaid with reed- and rush-type stems will suit the autumn and, of course, wetland areas heavy in rushes and reeds. Basically, it's not that popular but at the time, the angling fraternity switched on to camo big-

style, fell for marketing campaigns and started to wear green-based, photo-realistic, camo design – yes, the craze was now fashion.

To an extent I feel the camo industry has reached a point where all terrain and seasons are catered for, and yet I think some hunters are increasingly trend-orientated in their choice. As time moves on, so will the designs that become available, and once again a safe bet to say this is one area of the market that will continue to impress the consumer rather than leading to the ultimate downfall of more vermin! Clever marketing campaigns will try, and possibly succeed in convincing many people otherwise, but the selection of camo we already have basically caters for all terrain – until we hunt on Mars, that is!

So, how does basic camo such as DPM now rate in its use for airgun hunting? I still wear DPM combat-style trousers, because this pattern is useful for the foliage and fauna of the UK. I've also now taken to wearing 'Marpat' combat style trousers, again, as they cause visual confusion, the new digitalised patterns we are now seeing are actually being designed with computer software as a random camo pattern to suit most terrain with ground foliage of certain colours, variations thereof and hues. If they're waterproof, and over-trouser design, all the better as they are very practical for the sitting, kneeling, and crawling involved in many situations that the airgun hunter encounters. I find it strange that so many hunters overlook them, as they're relatively cheap and easy to come by; understandably, in the present climate, which is still one of predominantly photo-realistic patterns.

Certain elements involved in the promotion of all the new imitative camo designs working within the industry still actively try to discredit DPM as a pattern. Granted, these designs look more realistic to the foliage we sit amongst, but what of moving across bare grass fields and open land - both largely uniform, blank areas of one colour? This shows that the matter is not as simple as just putting on the latest 'must have' camo gear. I feel the matter needs further, more detailed explanation and certainly how quarry rather than another human being sees you.

It's now accepted that quarry doesn't have half the amount of colour receptors in the eyes as a human, so it basically sees any object as shades and shapes. If you're blending in and not moving, depending on how close you are to the targeted quarry, it more than likely knows something

is around - but there's always something else around. Keeping downwind, movement to a minimum, and keeping quiet are the major requisites for being 'unnoticed'. You may now be saying that this blows everything you've thought or heard of in relation to the effectiveness of any photo-realistic camo pattern out of the water. Well, in a way it does, but in others it doesn't. They were first created in the US for bowhunters who would wait amongst certain terrain to hide near a known ride to be much closer to their quarry (usually the whitetail deer) than someone using a powerful firearm, so the reason these types of camo works for them is very valid. As the 12ft lb airgun hunter also needs to be concealed to get or wait within the relatively short range, a 12ft lb air rifle is capable of cleanly dispatching legally deemed quarry species. I feel this is one of the major reasons airgun hunters in the UK welcomed them with open arms.

We shouldn't forget that DPM is still useful when used as a base pattern – the military once added foliage cut from the land they were operating over. This all helped the soldier to blend into the terrain.

I use the military again as an example, because the infantryman also realised that white faces and hands stood out because they reflect light, but this was soon remedied by the use of 'camo cream' – either green, black, or the American-style, multi-colour face cream. Granted, that is for the army, and often the use of camo becomes a life and death situation; but the hunter who realised that his hands and face gave him away would also use this cream even though he'd more than likely receive sniggers from other hunters if he mentioned using it. The truth is that he was better prepared to conceal himself from his quarry. Now, as clothing and designs have advanced, manufacturers have seen the benefits of full concealment and made apparel available to the public that negates the need for big splodges of cream, and these take the form of face-masks or veils. I swear by the use of these camo aids, including gloves.

I also feel the dedicated hunter in some instances should wear these at night, as even when there is little moonlight, a white face and hands at close quarters can stand out like beacons.

As I'm sure you now realise - the use of full camo when required is something I feel strongly about, and the only times I think of not using a camo mask or gloves are when indoor feral pigeon bashing, and certain

rating situations – all techniques that are dealt with elsewhere in this book.

Now we specifically look at a part of the body that gives everything away – the eyes. Your eyes are a big feature of your face and I have little doubt that the eyes, or maybe the movement and whites of the eyes, can allow another animal or bird to realise that you too are an animal and not the harmless inanimate object you are trying to resemble with the aid of camo. A peaked baseball-style cap or, if you prefer, a ‘boonie hat’ can be used to part-shield or obscure the eyes. You shouldn’t look directly at the quarry, but rather look up under the brim of the hat or peak of the cap, especially when observing quarry in the trees. The trick is to look up - without making direct eye contact - while you determine the bird’s demeanour or state of awareness. Once it settles, you can then slowly move to adjust your position, or whatever it takes to sight in on the target, but it must be said that if the quarry is totally tuned into its surroundings and on high alert, the slightest movement will have it off and away. Even though this can be terribly frustrating, a tip in such situations is simply to wait for it to settle or for a better opportunity to present itself. It is definitely better not to shoot, so as not to risk scaring other potential quarry that may arrive on the scene.

Alternatively, if you’re in position and you know the general area where birds are to pitch into the trees, you can have the rifle raised or part-raised towards the target area beforehand. Then you only need make the minimal movement necessary to put the cross-hairs onto the quarry’s kill-zone. You’re only able to do this if you’ve got into a comfortable sitting position to begin with. If the ground is uneven or rocky, use a shooting mat, or a specialist seat such as a turkey seat to avoid ‘numb bum syndrome’, and if the shooting mat or seat is black, drape a piece of camo net over it. You may think this a case of camo-overkill, but it’s not so, because a bare patch of black on the ground with you looking like a bush in the middle could attract curiosity then alarmed attention from quarry up above.



Cap, face veil and gloves are a necessity when shooting up into trees or when shooting at close range

The optimum position for this style of shooting is to be sitting comfortably, slightly leant back and using the trunk of a tree as a backrest, while your leading arm rests on your raised left knee and holds the rifle pointing upwards in the general direction of the area where quarry is likely to present itself. Obviously, if you're a left-hander then use the raised right knee as support. This means you're not straining muscles by holding a rifle up, as it's already rested and little movement will be needed on your part once you decide to take a shot. Another and sometimes better way to adopt this shooting position is to rest the rifle forend on a set of height-adjustable, two-leg or three-leg shooting sticks. Positioned correctly for the particular hunting situation, you can pull back on the sticks and the rifle will rise; pushing them forward has the opposite effect, though to a lesser degree.

This again illustrates how movement is the biggest giveaway, and one you should always be aware of to keep one step ahead of your quarry.

Still on the subject of the 'whites of your eyes', you can wear American-design shooting glasses that are transparent from the inside but have a camo pattern printed on the outer. These allow the shooter to see out but the quarry can't see in. I tried these when they first emerged in the UK as a camo accessory and they do work - something to consider if your quarry has become ultra-twitchy, or you're relatively close. However, to my knowledge, they didn't sell well and aren't available in the UK any more but I bet you'd find them on the Internet!

All this might seem like going overboard, but the hunter who pays attention to this sort of detail at times is more often than not the most successful. It's interesting to note that many very experienced hunters agree that the ability to blend into the surroundings is most important when at closer ranges, whereas the longer the range (i.e. the distance from your quarry to your position), the more care has to be taken in the prevention of showing your outline. More on this later as having established the benefits of good camo, I'll now sidetrack slightly to mention another factor relating to fieldcraft.

If you're a smoker you run a higher risk than a non-smoker of being scented when you try to get close to your quarry, and the same applies if you use too much aftershave. A rabbit's sense of smell is legendary, and its nose is seemingly constantly twitching. When really alert, the animal sits up or stretches higher on its hind legs, not only to get a better look around and to listen, but also to smell the air. I'm not coming down on smokers, but if I can smell a smoker - and my sense of smell isn't a patch on an animal's - what do you think? Some advocate the use of the American sprays, or as they're known, 'scent inhibitors.' Those who use them swear they work, and on that matter I'd say if you feel they help cover up unnatural smells then use them, because they'll boost your confidence if nothing else. Also, don't use heavily scented soaps before you go hunting. Just because the good lady was kind enough to leave hers handy in the shower is no excuse. Use it when you come home by all means, but before you hit the field - it's not recommended.

We've now dealt with reducing sight and smell, so what about sound? To mention the obvious rattling zips and buckles is all too easy, and most will realise that needs dealing with. Boots that squeak and clothing that rustles are also out, and nothing in your pockets should make any noise

when you move. A major gripe I also have is the use of Velcro. At night and/or when close to quarry, you might as well shout as use large strips of this material. Small tabs are acceptable for added security on pockets, but if you need to open anything and it is fastened or attached with large strips of double-sided Velcro, either do it before getting near to your chosen hunting area or don't use it at all.

Now, with everything covered, concealed and silenced, hopefully at this point it's now understandable why we go to these lengths to conceal ourselves!

Summer and Winter Wear

Camo clothing, like general outdoors country wear, is available in two distinct categories – lightweight summer wear, and heavier jackets and trousers suited to the temperatures and weather conditions of winter and colder weather.

Likewise, experienced outdoorsmen will say there's no such thing as bad weather – just bad clothing! When it comes to purchasing clothing for cold and/or wet weather, this is when you'll discover if the manufacturer's claims are true or not. Always buy from reputable companies with established, tried and tested products. As many companies now produce quality garments, some will be named as I mention individual garments, while other manufactures will be listed at the end of this book.

The former and warmer seasons often only involve the airgun hunter wearing a breathable, long-sleeve T-shirt under a lightweight jacket and combat-style trousers of a suitable green-based, photo-realistic camo design.

At present Realtree APG and APG HD pattern clothing seems to be all the rage. However, due to our unpredictable weather, no matter what time of year, you still need to think of worst case scenarios. The jacket should be at least showerproof, with a detachable hood and have a wick-away mesh inner lining. Likewise, the trousers, but a mesh inner lining isn't as important as stowage so that's why standard 6-pocket combats still rule the roost for most hunters. A poncho should definitely be in your kit bag, which for summer can be one of the rucksacks known as 'hydration

backpacks'. These have become very popular in a relatively short space of time, as have waist bags. I use this term as they're much more featured than single-pocket bum bags, and many a time you can carry everything in your waist bag rather than have the hassle of a backpack – even though it might have the in-vogue water bladder hydration system installed. All will be explained in the chapter that follows on the Kit and Accessories that I recommend any airgun hunter consider.

You'll often be stalking one period of the hunting foray and ambushing the next, so dress accordingly, and if ambushing it's always useful to take a suitable-size and design of camo net. If intending to shoot from ambush a gun bag/shooting mat can be very useful, but again, all will be revealed in the chapter that follows. Light faceveil and cap, boonie with veil, it's up to personal choice but don't forget gloves and always take a spare pair of them.

Mesh suits are often used in both summer and winter, they can be slipped over existing clothing and, when not in use, pack away easily for carrying and storage. These now come in most of the new patterns, and the better types are even shower resistant. When the weather's warm, they certainly offer the optimum solution for comfort, and they're also handy should you need or wish to change camo patterns quickly. A case in point is when stalking hedgerows and then deciding to wait up in ambush, if moving to another different foliated area. It is handy to have a suitable alternative pattern in a large enough size to throw over whatever your main camo wear is at such a time, in summer or winter. Incidentally, using a mesh suit in this manner doesn't afford you much protection from sharp objects or foliage, due to the lack of padding in this lightweight, almost skimpy wear. They offer little comfort when sitting or kneeling on rough ground, or when crawling into a shooting position, so wear something more substantial underneath, and perhaps gaiters to protect the lower legs. There are other forms of over-wear which I rate highly, and these are traditional-style ghillie suits, as previously mentioned, and their modern equivalents. Now, we must look at outdoor camo wear suited to cold, damp, inclement weather.

Most of the main garments you wear such as jacket and trousers should be made up of several different materials, typically an outer protective shell to withstand wear and tear, an inner membrane or

laminate for total waterproofing, and in many cases fixed or removable inner thermal or fleece linings for added warmth and comfort. Different manufacturers have their own trade names for these membranes and insulation linings, with Gore-Tex™ being one of the many and most respected brands, and probably the best known, but all are very effective. In relation to the style of jacket, different people have different preferences in the type or even the cut. Personally, I don't like parka-style garments, preferring three-quarter-length field jackets, and in summer wherever possible I'd opt for a bomber-style or similar with hood. At risk of contradicting myself, I'm not usually a great fan of using a hood on a jacket, because they can obscure hearing and vision, but if it's removable, either by zip or stud fasteners, then it's certainly useful to keep it in a side pocket should you need to sit out a downpour. Even I am not so stupid as to get wet, but when possible I prefer to use a baseball-type cap to protect me from showers. Some hoods are effective if they have integral peaks and come far enough forward over the head to shield the eyes partly by putting them in shadow, and if this is more appealing than wearing a separate item for full-face cover, at least you are using something useful. In relation to hoods, many are constructed as they feature 'volume adjusters.' These are often seen as three adjustable drawstring cords with ABS toggles, usually found either side and at the top and/or back of the hood. These ensure a perfect fit should the rain come down in buckets. However, I've usually found hoods a hindrance, not only to hearing but also if you are looking around, as the hood can obscure vision to the sides. Adjustment means more movement, and that's something we're trying to keep to a minimum. The jacket's collar should be of the high, stand-up, 'storm' design, to protect the back and sides of the neck from wind and draughts that can sneak into exposed areas.

Front fastening is usually by a zip or double zip and, as added protection, a stud fastened over-flap or storm flap. The jacket should cater for a snug fit around the wrist, with knitted ribbed cuffs or an adjustable wrist strap. All do the job they're designed to do, and that is to keep out the elements; but do remember to put your gloves on first before fastening up the wrist adjustments. The jacket's outer material is also important because it needs to be silent. Saddlecloth and Shikari Cloth were amongst some of the first to combat the dreaded 'rustle' but others

are now taking their place. Manufacturers often now use the phrase ‘made out of a silent outer fabric.’ Many more will be developed as this side of the sport continues to expand. Talking of ‘expansion,’ that’s another area addressed by clothing manufacturers for the active hunter. The inner waterproof laminate is termed ‘stretchy’ obviously meaning it doesn’t hinder movement. Laminates such as Deerhunter’s ‘Deer-Tex’ are testament to this. Also look to specifications such as water-resistant. This often means that although it does offer some protection from the rain it can’t claim to be 100% waterproof, simply because the seams are not sealed. However, virtually all quality outdoor wear is now breathable and fully windproof.

The season, and especially the prevailing weather or time of day or night when you’re actually going hunting will dictate what you wear underneath a jacket. This may only need to be a light fleece, but at other times something more suitably substantial will be needed. As I’m sure many already know, several layers of progressively thicker clothing are preferable to one big thick woolly jumper - no harm in reminding ourselves of that. The reason being, they allow the air to circulate so that you’re not as prone to sweating, but the layers trap warmth when it’s needed. If you’re too hot, removing a layer of clothing is the easy solution; but if you only had the one thick garment under your jacket then you’d not be able to regulate your temperature as efficiently or at all.

Layer Cake

The ‘layer’ principle of clothing should be adhered to, but also what is used in the build-up of the layers and also what the individual item’s main properties and attributes are.

For clothing closest to the body I recommend the following; a lightweight, breathable fleece with a three-quarter, zip-up neck opening. This helps to regulate heat retention. If this type of garment is worn, then combine it with a neck warmer that has a longer bib-style front to hide the bare white flesh of the neck. However, at this stage it isn’t that crucial as you can zip up an outer garment over the exposed area if necessary.

In colder weather the quantity of clothing needed is one of the reasons I take a rucksack when I go hunting. I store extra clothing that may be

needed in it, so leave it at a known position as I go about my hunting, then when needed I can go back to get another layer or safely store something I might have removed. If I need another layer due to the temperature dropping, a fleece top with high collar and full-zip front opening, or an item many airgun hunters don't consider, a fleece gilet. These are very versatile as an outer alternative to a full fleece or even extra last layer of your system - especially useful are ones with zip-up side pockets.

All extra layers are stored separately in the main pack in compression bags so they're not as cold as the surroundings and will be dry as a bone when you need them. Extra pairs of dry socks (both under-sock and outer if it's cold to the point a layer system is used for your feet) are always stored in the pack, as are a spare facemask and gloves. These are very important items if wearing full camo for concealment, and if you hunt regularly in them you'll know how a facemask can become sweat-soaked quite quickly, even in relatively cool conditions, and depending on your exertions. Gloves have a habit of picking up dampness as you put a steadying hand down on the ground. It will always seem to find any wet patch of grass, bare-earth or area of waterlogged ground.

As for the thermal underwear - thanks to the hi-tech new materials used in manufacture, we don't have to make do with those old-style cotton thermals that left you feeling sweaty and clammy after the slightest exertion. Those 'old-school' thermals once wet, stayed wet, leaving you feeling chilly and uncomfortable. Clothing has developed to the point where there are thermals that are constructed to allow moisture to pass through from your body - or, as it's known, wick away to an outer layer where it is held. The really hot new designs (no pun intended) use a polypropylene/cotton mix that allows any moisture to wick out, keeping you dry, warm and comfortably mobile. Stop! Then why have I still not found any that are 100% reliable; my opinion is because they are too tight-fitting to the skin. Those are just my views on the subject. Then again, we don't hunt in almost Arctic conditions in the UK do we - well not quite yet anyway!

The key words that are stated for a large percentage of hunting garments, both summer and winter, particularly suitable for all outdoor activities in inclement weather are; breathable, waterproof and

windproof. Three words that mean a lot in respect of how a garment has to be made and what materials are used to achieve this.

It's obvious why we require these attributes but the breathability of a garment isn't easily achieved, depending on design and of course what is worn over it. This is very important in very cold conditions when building up a layer system of garments for warmth; regulation of the temperature that can build up when worn under a suitable waterproof and windproof jacket – note the lack of the word 'breathable' in that last statement.

Also, tailoring the clothing you wear to the hunting you are intending to do has to be a major consideration as to what you wear. If actively seeking out or pursuing quarry, you'll be amazed at how much you actually do perspire under all those layers. In the cold, you will quickly warm up, but stop, wait and watch a while in a known hotspot for quarry, and you can begin to shiver all too quickly if you get the layer system wrong. This is because you've unwittingly blocked the flow of air from base layer to outer, so know now the importance of breathability. Your base layer, no matter how supposedly hi-tech of build will retain body sweat to some extent. The fast build-up, even though some of the damp perspiration is wicked away, is the main reason you will feel clammy and cold, so the garment you wear closest to your skin is very important. I've used top brands that we should be able to rely on, but upon calling it a day (or night), as soon as I've been able to remove the base layer it was completely soaked with sweat. In certain weather conditions, nothing can change this happening even if you wear the right layers; only going to the motor or rucky to change it solves the problem. In the cold, it isn't ideal stripping down to your bare upper torso to change the first layer, so if not sitting or lying in ambush this isn't as critical because you're not exerting yourself and therefore sweating.

What follow are my personal views. Use them as a guide to what suits the hunting you normally undertake and, of course, the weather conditions.

Base Layer - Should be a very light garment, loose but not an overlarge fit, that's breathable. Preferably, it will have air vents or open mesh at the underarms or upper

sides and have a three-quarter-length, zip-up neck. This allows you to regulate manually the air trapped under the garment, and some will be if wearing other garments on top.

Mid Layer – This is the garment many get wrong and most just put on a long-sleeved T-shirt or sweatshirt – WRONG! It needs to be a more substantial, looser fitting garment such as a light fleece with three-quarters- or full-length zip front opening, but have the same properties as the base layer detailed previously. If windproof as well, all the better.

It has to be very cold for the next layer so choosing again isn't easy as your body temperature fluctuates. A heavier fleece, full zip opening and high, stand-up, storm collar, with elasticated cuffs is certainly the least you require. Alternatively, as mentioned previously, you could wear a gilet - basically a body-warmer with no arms and full zip-up front. Both can quickly be removed should the need arise and I've found myself wearing these more and more in the colder months.

Pay particular attention to the jacket you wear, be it one colour or camo. The reason being if it has a zip-out fleece lining I'd say if it isn't too insulted, remove this as it's easier done before setting out than having to remove it in the field, and store it or your top layer worn underneath.

The jacket will preferably be breathable, and needs both a separate waterproof and windproof laminate, preferably with regulating arm and body vents that you open or close with rain-protected zips. They work, as when open they will reveal a more open mesh, this keeps out heavy rain, and are positioned in areas that aren't as easily exposed to the elements. The number of cargo pockets, or other-style outer pockets, is up to personal choice but better to have more outside than continually opening what should be a heavy-duty, full-zip front with storm flap and stand-up collar with integral or removable hood. Also, strong, adjustable, Velcro strap fasteners are needed at the cuffs to cinch the jacket tight, when needed, around the upper part of the gloves you should be wearing.

The trousers I recommend are pretty much standard combat-style for summer and come winter, combine these with a heavier-duty, pull-over, breathable, waterproof and windproof over-trouser. The latter may or

may not have pockets, but one or two are favourable as are side access openings to your inside pockets. As for the ankle area, you'll often find that combat trousers have drawstring bottoms. If not, they should, as there's nothing worse than those with a nondescript straight-leg cut. For the over-pants, these usually are elasticated at the top and/or have zipped-leg, open bottoms so they can be pulled on over boots. Then zip up the lower area, and on better-quality garments there'll also be ankle adjusters of either the Velcro strap design or press stud fasteners allowing at least two settings to cinch tight around the ankle of your boots. We'll come to footwear later, but in my experience anything with a zip is an area that needs to be considered in relation to it being a stress point, and the amount of use it receives. Usually, good-quality garments have heavy-duty zips, so there shouldn't be a problem. You'll need to clean these ankle zips regularly so that they don't become clogged with dry mud and earth that will be picked up in the field. A tip is, once the zip is clean and dry, rub the teeth with candle wax as this helps to keep them lubricated and working as they should, and to some extent it also helps to limit the picking up of dirt. The same applies to the zips of jackets and pockets.

Since the original version of my book, a superb all-in-one zip cleaner/protector and lubricant called E-Zip has been developed and is available in aerosol form. It's a 'Napier of England' product and I make no excuses for their products being recommended throughout this book because, certainly, products they design and have manufactured in the UK are very innovative, and in more recent years they've been pro-active in producing more products for the airgun user and of course developing kit that impresses.

Wash Out!

Camo wear should never be washed in normal washing liquid or powder. It infuses the clothing with ultraviolet, accentuating the pattern in turn, rendering it much less effective. Clothing should be given a lukewarm or cold water wash with no detergents. I leave mine for as long as I can, but I do wash them when needed so that the camo is still effective, and doesn't turn into a bland-looking splodge of mud. Similarly, if over-washed, and although the camo designs are printed using inks and dyes

designed to be as colourfast as possible, eventually all fabrics will fade. A faded camo pattern loses both colour and contrast, and this undermines its ability to create visual confusion necessary for it to be effective. To delay fading through washing, wash the garments turned inside out, using cold water and allowing them to hang-dry naturally, and not on a hot spin-cycle. Although it's not easy when sharing your living accommodation with others, don't worry unduly if your clothing smells of the outdoors. That's the smell of Mother Nature and God's own earth, and it's the best human scent inhibitor you'll ever find to cover natural body aroma, which is especially important for an airgun hunter needing to get closer to quarry. If you can leave them without washing, keep the clothes in a sealed bag or somewhere hung off the ground. The place should be dry, and it's ideal if you happen to have a roomy garage - but do bring them indoors before going hunting. It's surprising how cold can permeate a jacket to the point where it seems you can never get warm in it, especially if it hasn't been properly dried and aired before use.

Leg It

At the leg area, gaiters used to be popular but are now very much left to deerstalkers and rough shooters. If you don't like wearing high-leg boots then gaiters are worth considering, as they do offer calf and upper leg protection when walking through tall, wet grass, prevent nettle stings, and when operating in an area where ticks can nip up a trouser leg ... and yes - camo gaiters are available!

For face and hand cover I recommend the Cap with Veil (Arctic Outdoors). Garlands supply some excellent garments for face/head and hands and I particularly must highlight Jack Pyke of England. It really does seem that JP's sister company, Thatchreed Ltd, have exploded on to the scene with all manner of clothing in their own specific camo designs; gloves, head/face covers and much, much more. 'From small acorns', as they say ... no pun intended.

Obviously, it's light gloves for summer, and heavier waterproof gloves for winter. In warmer weather, I prefer to use light gloves with dot grip palms, but in winter I'll opt for the heavier camo neoprene gloves, again with the dot grips. I certainly now prefer the neoprene stretch-fit

gloves with fold-back trigger and thumb. Whatever the season though, it's beneficial to have gloves with extra-long cuffs for full wrist concealment and protection from the elements. Most airgun hunters will have light gloves for summer, stretch neoprene with fold-back finger and thumb, Fingerless mitts, with or without overflap, sturdier neoprene cut-fingers and, of course, any all-weather airgun hunter should have a suitable pair of MacWet Gloves.

A useful tip for any full-finger, heavier neoprene gloves is to cut the tip off the forefinger and thumb of the glove for the shooting hand. This allows the shooter to feel the trigger and to load pellets into barrels, loading channels or magazines easily. For the latter I'll also sometimes use gloves on which both hands have the specified finger and thumb tip severed. This is often preferable for holding magazines while refilling and refitting them to the rifle. With heavier gloves, even if they are what are termed 'cut-finger' types (meaning that you can fold back the first two fingers and thumb, which are split and have a Velcro fold-back) I often still cut the finger and thumb tips off the shooting-hand glove.

This is because the folded-back tip of the glove may foul on the rifle's trigger guard, and they have the annoying habit of flipping back over to their original positions - usually at crucial moments. But I must admit that on the left hand I find them useful, and often leave them unmodified. Incidentally, for hunting at night I often now wear a pair of strong yet tactile fingerless-mitt-style, tactical shooting gloves - more on night attire in the relevant section on Shooting At Night.

Although we've talked head/face cover, I'd like specifically to address the lightweight facemasks you pull over your head and tie at the back. I don't feel the camo pattern to be crucial in your selection, but do ensure that it's not of a type that could move as you turn your head and start to hinder your vision.

There's also the head-over sock or stocking-type headgear, similar to a stretched leg of nylon stocking as used by bank robbers. These come in a basic camo pattern called Spandoflaue[®]. I've used them, they work, but you don't see them as much and I'd not recommend them if you tend to feel claustrophobic.

If it's cold, you can add an extra insulating layer, which I prefer than wearing one heavier-duty, knitted balaclava design, camo pattern, fleece-fronted face mask. These are camo fleece face covers that go on from the front, covering the forehead, have eye-slits, nose-piece with vent and mouth vent. These can easily be kept in a jacket pocket and quick and easily fit around your faceveil or mask to fasten at the rear usually with a strong Velcro tab.

As for caps or hooded garments with integral drop-down face veils, these are notorious for shifting position and exposing part of the face. This can be remedied by stitching in a couple of tabs of double-sided Velcro, so long as you don't overdo it, but by and large I prefer to cut these out and use a mask. There's always a 'but' - drop-down face veils do actually conceal the eyes more effectively, as well as the face, as they often cover the whole of the facial area with a see-through mesh similar to the material used in pop-up hide shooting windows. So, if they can be modified to suit your shooting style then so much the better.

The head and shoulders of the human form are unmistakable, no matter how they are covered. Strive never to show your head or upper torso in silhouette against a contrasting background, because as I've continually driven home as being proven fact and discovered by myself and many others, the best camo in the world won't hide your outline. Even though the body is covered by an imitative camouflage pattern against suitable foliage, if you're not positioned correctly you will still stand out.

A Case of the Ghillies

The best concealment to break up the outline of the human body shape is 3D leaf-effect over-suits, or as they're commonly known, ghillie suits. The loose 'leaves' protrude irregularly from the straight edges of your body, thereby blurring the outline. The origin of these suits is commonly attributed to the US military in Vietnam, as it was around the 1960s that they began to be issued and used by military snipers. Even earlier, they were certainly used by some British soldiers in WWI. However, there has been some fanciful speculation as to their invention and first use by the sport shooter. The name would have you suppose there is a link with

Scottish deerstalkers and countrymen of the same name – ghillie. The link seems to be a tenuous one, but it could be that the name was adopted because Scottish ghillies mainly wore - as they still do - traditional tweeds of a colour that makes them less obtrusive on moorland heather. There's also a 'tree fairy' of Celtic folklore known as the Ghillie Dhu, which disguised itself with leaves to play pranks on those who ventured into the woods. That's a nice twist to the tale and a play on words, but not wanting to get embroiled in a controversy over the garment name's true origins, I feel that's one for military historians.

The suit itself is of great benefit, firstly for the soldier; the military version is used by snipers who need a large, baggy, comfortable suit or universal, effective camo covering that they can move in and rest under. They also needed one they could swiftly remove when they needed to leave an area in hurry, and these soon became standard sniper issue. Early ones were little more than strips of dark hessian and strips of khaki-coloured cloth stitched onto khaki fatigues. As the availability and types of clothing advanced, the military designs were usually manufactured from more modern materials in dark olive, charcoal and even black. Interestingly, the more recent military versions seem to have reverted to the 'hanging cloth' design, using strips of burlap and jute on a mesh suit to obtain the desired effect. There are now many loose-leaf systems available and also rifle covers that use the same design and do an excellent job of concealing a rifle/scope combo.

For hunting, a more formal style of the ghillie suit is now available in a small selection of new-age, imitative camouflage patterns. Any ghillie suit will probably provide better concealment than flat cloth camouflage, because the first function of a ghillie suit is to add a sense of depth to the otherwise two-dimensional human outline. No printed cloth in the world can duplicate this, even though some HD (High Definition) patterns are now almost reaching a level where they have 3D characteristics. As well as creating depth, the second essential purpose of a ghillie suit is to make the resulting three-dimensional form blend as undetectably as possible into its immediate surroundings, whether that happens to be ground characteristics or vegetation, or both.

Much of the effectiveness of a modern hunting ghillie suit is due to the loose leaf design, as the texture of the outer material won't look flat

or block-cut. In the natural environment few things have clean-cut edges. In certain cases I would choose a ghillie suit, but only if not moving through heavy undergrowth or sitting up in tangled vegetation, as brambles in particular have an annoying habit of catching in the loose-leaf build of these suits. Some manufacturers have tried to remedy this by using a half-and-half design – i.e. loose-leaf for the edges of the suit, while the back is of flat cloth camo so that you can push yourself backwards into undergrowth. Fine in theory, but there's always a stray branch or twig that'll catch on the side of the suit, so if you're going to move about regularly use a more conventional design of camo wear. If lying up or sitting still in ambush, they can be deadly effective. Interestingly, as you've seen earlier, you can purchase part ghillie-type garments that just conceal the head and shoulders, and these do go some way to eliminating the problem of getting snagged on foliage as you stand and move position.



Use good camo, fieldcraft techniques, knowledge of quarry and the right accessories and you'll be successful

One downside of military-type burlap and jute ghillie suits is they can be heavy and warm, and unfortunately, if they get wet they can absorb a lot of water, rendering them uncomfortable and even heavier to wear. No matter what camouflage you've chosen to help conceal yourself, let's take an example of a scenario that facilitates its use with the terrain

you're operating over to stress the importance of body positioning, and the part your use of other cover plays in concealment.

Always try to position yourself, when seated or even when moving, with branches or other such objects half-obscuring your body from the area you're targeting. Branches and low foliage that runs across the front of your outline, as long as they don't obscure your view and shot to the target, are helpful in breaking up the unmistakable human form. Remember, there are no straight lines in nature, especially ones that move like we do, so anything that helps you blend into the surroundings should be used. Branches, small shrubs, a patch of high nettles, ferns - anything that's there, use it as cover.

Good camouflage will help conceal you, but using it with the terrain also allows you to make small, slow and subtle movements, especially when in a position to make final adjustments for your aim - the crucial moment for any successful shot taken in the field.

Suited? Now Booted!

We can't discuss clothing without mentioning the importance of good quality footwear. For most, a strong pair of hiking boots will suffice, and a pair of mid-height flexible boots and flexible outer soles. This type of boot I favour for stalking in summer.

You'll be surprised how quickly you can amass a selection of boots, including high-ankle field boots and even camo boots, to cope with the terrain and situations you hunt over. I've got as many different pairs of boots as there are months in the year, and I swear I've a use for them all. I think ...?

The two main specific types of field boot are mid- or high-leg design. Lower-cut boots give more flexibility for slow, stealthy stalking while high-leg, as the name implies, affords better ankle support to avoid sprains and similar injuries should you go over into a rut or when negotiating rough ground. Also, these are often more insulated and therefore ideal for the colder months. Another important feature of any boot is the sole or, as the treads are known, the cleats.

Whilst a stalking boot requires a soft, flexible sole, boots with a harder, tougher and more rigid, thick rubber cleat are more suited for wet,

muddy fields. A word of caution is that some cleats and the material the sole is manufactured from are notorious for being slippery on wet stone.

I always prefer to wear field boots that offer ankle support, and as camo boots are now available, these are often tempting to the airgun hunter who needs to get closer to the target. In my view, it's not necessary, but a nice selling ploy as they're intended to give more confidence to the wearer.

Some prefer to wear traditional Wellington boots, and I personally wouldn't recommend these for airgun hunting due to their lack of flexibility, but there are alternatives that I do wear, especially the field boots manufactured as a half Wellington/half field boot. These have rubber soles that come midway around the ankle, providing superb protection in waterlogged fields, tracks and ditches. The special sole is stitched onto a more typical leather or Cordura field boot for better flexibility of movement.

Whichever you choose, don't skimp on the quality of the socks you wear underneath, as I touched on previously. Frankly, some socks sold as thermals are about as thermal as my chest hair! A couple of pairs of thinner, good-quality socks are better than one pair of poor-quality thick ones. As with underwear, you can obtain socks to be used on the layer principle, and these give an impressive performance in terms of comfort and heat retention.

The technological advances in footwear suited to the the hunter and the serious outdoor pursuit devotees is amazing in what now can be built into a modern hunting boot. Not only insulation but shock absorbing soles, heat retaining and heel to toe supportive foot beds and shanks, Achilles heel flex panels at the rear for comfort – I could go on and on as the specifications of most footwear is now bewildering!

Removable hi-tech insoles, higher and more toe and heel protection with front ridging to help you walk up muddy or slippery wet terrain and equally the design at the outer rear, rising up the heel section can be ridged, and in most cases it's part of the sole. This design reduces slippage or slows down an unsteady descent in the same slippery conditions. All manufacturers have their own names for the design that protects or supports, and the different membranes and materials used for the boot to be waterproof, insulated and that now much mooted, but hopefully now due

to what you've previously read, important attribute, breathability. That oval, orange, rugby-ball-shape found underneath the sole is often an indication (if you see the name and logo) that it's a Vibram design - the world's leading designer and manufacturer of one of any boot's most important areas. The outer sole and cleat layout has to offer good traction, flexibility and comfort.

So as you can see, the choice is huge, but the dedicated hunter needs to be prepared for all situations. That includes, like clothing, the fact that your footwear will need cleaning especially in winter. If muddy or wet after a hunting foray, put them in a boot bag, so you don't unnecessarily dirty your motor.

Once home, let them dry naturally (if not raining, out in the open) as I often do, in the garage or shed, but bring them in to warm up slightly before the next stage. Once mud is dry, carefully knock it off with a rubber-headed mallet; don't bang them together, bash them on your concrete or brick-paved drive, and certainly not against an outside wall. Remove laces, the rest of the mud and any clods of soil with a firm-bristled shoe brush – not forgetting to clean lugs and cleats of the soles of any debris they've picked up. Then clean with the appropriate cleaning products advised by the company, or those you favour. It's always wise to treat leather to prevent cracking, with the suitable leather replenishing cream or foam.

Follow the instructions of any cleaning agent you use and that applies to boots as it does to clothes. Loosely replace the laces, and if advised by the manufacture spray a light covering of water-repelling liquid onto them and store back in the boot bag until your next trip out.

Hardware

Most hunters will have seen full camo-covered hunting combos. They look very appealing to certain airgun hunters, and in the field can be really effective for concealing a weapon, as I've detailed previously.

Long before these were available, many like me, had taken a leaf (no pun intended) from the military handbook and we were concealing our rifles with strips of tied-on scrim scarf and patches cut from worn out

DPM combats. Useful as it was at the time, you can now make use of camo tape such as the No-Mar (No-Mark) Camo-Tape made by the American company, H.S. Camo (Hunter's Specialities), to break up the outline of the stock, action, scope, barrel or silencer. Even if you only wrap it around the barrel and put intermittent stripes on the stock, you're going along the right path to concealing your kit. Another bonus is that tape can easily be changed for another pattern, thereby adapting to suit a particular terrain. In fact, the best camo I once used was while shooting where there was minimal cover at the side of a barren field. To remedy this I used camo tape around the silencer and the appropriate dark brown pattern camo netting draped around the rifle and over me! The army realised the importance of camo on weapons and scopes, as everything you carry or use (not forgetting yourself) all needs to be concealed at certain times, as in effect, you and your kit, if seen, are a foreign object often classed as dangerous in the terrain you're operating over. The camo you employ will imitate the surrounding foliage, and does break up those give-away straight, black outlines of a mainly black-coloured object with well-defined lines and edges to the action, barrel, silencer, scope mounts and scope. Some think this is going too far, and many feel it's unnecessary. In some ways I can agree, as a rifle with a matte finish and dull colour stock is very much like a branch - as long as you're not waving it around - but on the subject of movement, move your combo, say to raise it to your shoulder, and it does give off some glints no matter how much it seems to be matted down. Also, nothing in the natural environment is made of plastic or metal, and everything is more noticeable when it's moved. You'll also not often stumble across a luxurious piece of quality, hand-finished, oiled walnut stock wood whilst on your shoot.



There are various coverings for your hardware – some are permanent finishes, others semi-permanent

We've noted the importance of movement as a give-away of position, but consider this. Slowly moving a rifle combo that's been camo-covered is less likely to be noticed than an untreated one, so in situations such as relatively close-quarters hunting - and especially if shooting from cover below aiming up into trees - I'd say having the rifle combo covered in camo definitely gives you an edge. If you're really serious about this aspect of cover, you can go the whole hog and have the combo specially dipped in the camo pattern of your choice by the specialists in this field, as I mentioned earlier – Hydrographics. Yes, the very same as run by the superb stock designer, Jon Sykes. This company can cover virtually anything by the ingenious dipping process of immersion coating. The item to be covered, be it rifle action, stock, scope, mounts etc., is immersed in a liquid which has a film of the desired camo design floating on the surface, and that adheres to the item when immersed. After coating, a finish is applied to give the camo a protective skin. This is so fine-tuned

that it can be made matte or, even more useful, a final finish called ‘soft touch’ can be applied.

As the name implies, this gives a sure grip and another bonus is that once treated the outside of your rifle and scope are waterproofed. Even accessories such as spare buddy bottles, scope mounts and bipods can be treated – in fact, your whole kit and caboodle.

However, choose your camo pattern with care as this is a permanent, (permanent covering) that to remove would need sanding off and another pattern put on to replace it.

You can choose now to have other coverings, as I touched on earlier in my views on disguising hard outline; some permanent, semi-permanent and different types of non-permanent camo finish. Permanent obviously means that if you want to change back, you can’t. The reason being, to treat a rifle by dipping, or by having special custom paint jobs done, they first attack it with a rotary wire brush to scuff up that lovely walnut stock and deep blued or blacked finish so that the sheets of camo, or special paint used, depending on the one you choose to have done, can adhere properly to your kit. The only way back from this, if you do want to change colour, is to use suitable LLCS loose leaf strips and change as the seasons do, or it’s a case of having a completely new pattern camo dip. Personally, my dipped rifles were very well considered choices, and used only after testing clothing in the camo pattern until I was satisfied that it was efficient enough for a high level of concealment. Only then would I choose which pattern to have my complete rig given the dipping treatment. The plus side, though, is it protects the rifle from rust, (except the inside) – so you still need to keep up your maintenance routine periodically of barrel-cleaning, lubing and oiling where necessary.

If you feel competent at DIY, then I’d say, why not try the camo cover kits from USMC Military Supplies. You can use templates or just experiment. I’d say try earth tones, obviously, unless shooting over snow! When you want to change back, you spray it with a solution that doesn’t harm metal or wood but quite literally changes the dry paint into a non-residue-leaving liquid. It works, and that’s a reason many prefer it.

Those with less artistic skills can choose the alternative non-permanent measures; these include using the No-Marc camo tape or a military-style rifle wrap as previously detailed.

Be warned. Non-permanent measures can easily give you a false sense that the rifle is protected. Not so. I've seen rifles covered with both materials; they've got wet or just taken on the moisture that is around at morning and night, and if you're rifle gets wet, you **MUST TAKE OFF ALL CAMO MATERIAL** you've applied. If you don't, under that superb camo job you did you'll find, to your horror, a rifle that's now begun to rust. Worst case scenario is you'll need to have the rifle re-blued and blacked. If you are not now put off concealment for hardware, have it camo-dipped at Hydrographics. They'll remove all pitting and any rust residue and dip it in the camo pattern of choice which now seems to be a never-ending selection; not only Bill Jordan's Advantage Realtree patterns but they also license a couple of what I feel are very useful Mossy Oak photo-realistic patterns.

The latest to hit the market and one I can recommend is from a company called CAMO IT. This comes in kit form in a Jack Pyke camo of choice. That company do keep cropping up don't they? Anyway, you get different size strips of adhesive-backed, special camo material, and instructions of how to apply. I've done one myself and can say they aren't easy; they're certainly more difficult the more intricate the stock design is, such as thumbhole stocks. However, take time and effort and the benefits are that the material, does protect the metal from the elements.

There are also different colours of special paint available that come in aerosol form, that you can use to create your own camo job for your rifle/scope combo. These paints dry hard and don't rub off. Surprisingly, they're removable using a special cleaning/removing solution that can be bought from the same companies who offer these paints. So, get it wrong and you can redo it Those who have used these say you get better the more you experiment and I've seen some very good examples. As a guide, use drab green as a base layer and add touches of brown and black; that should be sufficient, and come autumn, if you've done this for summer's lush greenery, change to an overall more autumnal colouration. You never know, you might discover an artistic side in you! Incidentally, something you really need to consider is that any custom work done specifically to you, and particularly a permanent camo finish, will make it more difficult to sell the rifle as it won't be as generally desirable as it

once was. The amount of money you spend on that cherished, unique air rifle, can actually devalue it should you come to want to trade it in or sell on.

The History, Origins and Ethos of Mossy Oak...

In the mid 1980s an enterprising young man named Toxey Haas came on to the scene, due to a love for the outdoors installed in him by his father. So strong was his ambition that he took the sound bite of 'building a business from the ground up' quite literally. Using inspiration from the natural surroundings of the woods, in 1986 he founded Haas Outdoors, Inc. and the brand we all know as Mossy Oak was born.

Some of Mossy Oak's first products were manufactured in his mother Evelyn's sewing room in their attic. Now, products bearing the Mossy Oak logo can be found all across the States and far beyond.

To quote the company's website: 'It began with a fist full of dirt in 1986,' (an even niftier sound bite), but one that goes to illustrate that the same hunting and outdoor lifestyle still exists at the company to this present day. This love of the outdoors and MO's commitment to sustain that lifestyle drives them to team up with other companies that share their values.

This has resulted in the Mississippi-based company working to support programmes and various organisations that are committed to the outdoors, as well as building relationships that complement what they term as 'The Mossy Oak brand lifestyle'.

Beginning with a 'desire to get closer to critters,' Mossy Oak's first patterns were Bottomland[®], Greenleaf[®], Treestand[®], Full Foliage[®] and Fall Foliage[®]. These all used natural elements and colours, effective and terrain, or situation specific, designs that helped the hunter blend into the natural surroundings.

Their development team soon realised that shadows are the most common element of nature. The first in their shadow series of camo patterns was Break-Up[®], which revolutionised the way people thought about camo. Break-Up was much more effective at concealment and in so many different hunting situations it quickly became a best seller. Other

specialty patterns in the shadow series included Shadow Grass[®], Shadow Branch[®], Shadow Leaf[®] and Forest Floor[®].

As technology improved in digital imagery and printing techniques, so did Mossy Oak patterns. Come the Millennium their patterns became much more realistic with an enhanced 3D effect. New technology was put to work on their most popular pattern at the time, the very effective Break-Up and the redesigned pattern was introduced in 2002 as New Break-Up[®]. This was soon followed with New Shadow Grass[®]. Then in 2004, came their latest pattern for springtime, Obsession[®].

Mossy Oak Brush[®] was the first pattern to use an all-new background other than Bottomland.

Then, launched in 2007, Duck Blind[®] incorporates elements from all flyways from coast to coast. In 2008 the launch of all-new Treestand[®] gave hunters a pattern that works specifically for hunting from an elevated position.

Building on the success of Break-Up, in 2010, they introduced Break-Up Infinity[®]. This features six layers of depth, giving the illusion that you are actually looking into the pattern as if you were looking into the woods - or to quote the company: 'with depth, detail and definition.'

Mossy Oak is first and foremost a camouflage brand, as you'll soon read, like Realtree, they manufacture camo patterns not clothing, and like Bill Jordan's Realtree empire they are proud that their products are worn by people as a representation of their love for the outdoors, and the hunting lifestyle in their daily lives. Mossy Oak always state that the very same appreciation for the outdoors and passion for hunting exists within their company and is consistently communicated through various channels.

The History, Origins and Ethos of Realtree...

Many hunters recognise the brand, Realtree, with their popular, distinct camouflage patterns used successfully worldwide, but not everyone understands the humble beginnings of the brand, and the fascinating story behind their global success.

The Realtree story started 27 years ago in 1986, in a front garden in the USA. It was in his parent's front yard that Realtree founder, Bill Jordan, sketched his first camouflage pattern. Bill discovered that he could create a three-dimensional appearance that would match different terrains, by layering the images of twigs and leaves over a vertical bark background.

At the time, Bill was trying to find a way to separate his first company 'Spartan Archery Products' from its competitors. Spartan manufactured and sold T-shirts to large retail customers across the US, but it was tough going with low profit margins and high volumes, and Bill was forced to scrimp, penny-pinch, and compete in fishing bass tournaments to provide an income to keep the business up and running in these tough times.

Bill took his newly-created design to local mills and navigated the printing process so he would have a set of camouflage clothing to photograph. However, the invisibility power of the camouflage was proving too effective! Trying to get the camouflage pattern to stay on the fabric without rubbing off proved to be a major challenge.

Ever resourceful, and recognising the importance of promoting the patterns from the beginning, Bill resorted to sending photos, every month for eight months, to buyers of hunting clothing across the US. There was increasing pressure for garment samples from interested parties, and Bill recalls, "I didn't have any garment, but I couldn't tell them that, so I just sent them some more photos."

The first Realtree-patterned samples were finished just hours before their official launch at the annual Shooting, Hunting, and Outdoor Trade (SHOT) show in 1986. The SHOT Show is renowned as the largest, most comprehensive trade show for all professionals involved with the shooting sports, hunting and law enforcement industries; currently attracting buyers from across the US and the world.

Anxiety levels were high; with no manufacturer, no money, dressing mannequins at midnight just before the start of the show, and unable to pay for the cost of the booth in full, Bill found himself ducking out the back every time the organisers visited the stand looking for payment! Although, Bill did find a way to pay his obligation by the end of the show.

Bill's huge risk was about to pay off. By 10am on the opening day of the show Bill was standing in good company, with the buyers from Bass Pro Shops, Oshman's and Wal-Mart's, the largest retailers in the world.

Wally Switzer of Wal-Mart could clearly see Bill's passion and determination. Unable to fund a clothing manufacturing business, a relationship was built with Eastbank Textiles where Wal-Mart would buy the fabric from Eastbank, who would then, in turn, manufacture the garments and see how well they sold - and this is how Realtree and its licensing business was born.

The Realtree story is truly inspirational with Bill and his then small team celebrating every small success. Today there are over 1,500 licensees and 10,000 products, with Realtree employing more than 80 people in Columbus, Georgia.

Technology for producing the camouflage designs has moved forward significantly; with sophisticated computers, digital cameras, and photo-realistic printing, light years ahead of Bill sketching designs in his parent's front yard!

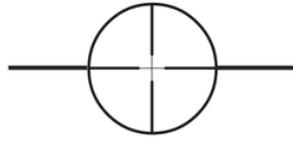
The licensing business model is reliant on volume; Realtree receive a small commission every time one of their camouflage patterns is used in manufacturing approved products, such as tools, equipment and clothing for the hunting and lifestyle markets.

A global enterprise, Realtree understands that each international market has its own unique requirements and commits to working with their partners to provide a valuable connection to the outdoor pursuits sector.

Most importantly, Realtree aim to be much more than a brand; they aim to represent wearing Realtree as a way of life and a badge of honour, promoting good hunting practices. Bill Jordan says, "Our patterns not only allow the outdoor enthusiasts who wear them to be more effective in the woods, they also allow them to show their love of the outdoors in their everyday lives."

Footnote: Both companies have a camo for hunting in snow. Not as popular or readily available in the UK, but should you require it Realtree offer AP Snow, and Mossy Oak has Winter.

As you can see, there's always a camo to suit the season and terrain, so choose wisely and wear with confidence.



9

Hunting Accessories

Kit Bag Essentials and Useful Extras

As you progress as a hunter you'll soon come to realise the need for certain accessories and to carry a few essentials, besides the obvious such as extra ammo, but caveat emptor, as some accessories are just vying for your cash and offer little by way of practical field usage. So, where I do make mention of specific items it's because I now use them and appreciate the benefits they offer.

Accessories generally fall into two distinct categories; those that are small and compact enough to fit into a jacket pocket, and those of a size that come in their own larger, padded carry cases, or for extra protection, warrant you buying a suitably sized rucksack, or a fully- featured waist bag.

Fortunately, the accessories you will find of most use, to have immediately to hand, will fit into a pocket of your jacket, but be warned; it's all too easy to start adding more and more to your hunting kit until you start to overburden yourself. The general airgun hunter should be more concerned with items that can be classed as 'kit bag essentials' which will easily fit into a small to medium-sized rucksack of 30 – 35 litre capacity. For most of the year, I use rucksacks or backpacks, as they're more often termed, but in summer and for shorter sessions I now prefer to use a waist bag.



Most people carry accessories onto the shoot in a rucksack or specialist waistbag

The former is a well-thought-out design that affords maximum stowage without hindering movement. The latter is designed as a waist bag with enough pockets to store essentials discreetly and securely, including an integral, fold-out, waterproof, heavy-duty, nylon-lined rucksack-style/sized bag that, when not needed, sits neatly behind the carrying system. This is configured as an adjustable/detachable double shoulder harness. Before going any further, let's not forget that there is, of course, the all-important factor of the gun itself being carried; even while in a vehicle it needs to be in a gun bag.

If that's the only journey it makes, from your house to the vehicle, and then you're fortunate enough to be able to step straight onto your shoot, then you can use a gun slip. These cover a rifle but offer little in the way of protection. Whichever you choose, it's required by law that you carry your gun in a gun bag at all times if travelling in or through a public place.

Most good gun shops will stock a range of gun bags of one sort or another. Also, virtually all gun manufacturers have bags manufactured for them and 'badge' them up as their own. These range from simple gun

slips, as outlined, to padded cases with extra external pockets for kit, and some even have special carrying attachments.

In that respect, the amount of various designs of gun bags is a seemingly endless list, but on the whole they share very similar properties depending on classification. Have a clear view of what you want from your gun bag, and you'll easily find exactly the right one for your needs and not have to search that hard.

In the long run it's often better to opt for a specialist type of padded case, granted it'll be more expensive, but it's ideal for gun protection, stowage (external pockets) and the versatility it can offer given the amount and/or types of carrying options.

Feature Creature

Main features to address are: It needs to be manufactured from tough, weather-resisting synthetic or canvas material with high-strength fittings and preferably have reinforced stitching. Where applicable, clips should be metal or at least toughened ABS and all zips need to be heavy-duty.

On some brands, you'll find an inner fleece lining with a waterproof liner but better still, look for a gun bag that has close-cell, high-density foam padding with an internal waterproof liner and adjustable internal retaining straps so the rifle can't move around in transit, plus a muzzle protector and/or a butt retainer.

The features detailed are installed to ensure that maximum protection is given to the rifle in transit. Many bags have external cargo-style pockets or zipped outer sleeve-type pockets – some more than others depending on type. These are handy for carrying extra kit.

Most hunters these days go for a fully featured bag from the off. Even so, if possible, once on a shoot I leave my bag in the vehicle or in an area where I know it's safe, on my permission and out of plain sight.

There are more specialised bags known as gun bag/shooting mats for use when the hunter is specifically setting out to shoot off the bipod, from the prone position and lying comfortably on the shooting mat that the gun bag has transformed into, so that waiting in ambush is not dictated by the terrain beneath it.

Incidentally, if more protection is needed for the journey in transit, there are semi-rigid ABS carry cases with egg-box-type foam linings available from Flambeau and Plano, even aluminium, strengthened, lockable, airline-approved flight cases from such trusted brands as Napier or Peli. So as you can see, the choices for keeping that valuable rifle/scope combo safe in transit are many.

Semi-Detached

One piece of kit that I feel is essential, and which hunters should consider fitting to the rifle from the outset, is a set of quality sling swivel studs. Not only to use with a sling and Quick Detachable (QD) sling swivels to ease the burden when walking around your shoot, but equally of use for attaching a bipod. This is a very useful addition to your equipment for ambush shooting if using a PCP air rifle and there'll be much more on these rests later. Many hunters, as I do, feel the best by far are the QD sling swivels and swivel studs manufactured by Uncle Mike's, a company which also makes a variety of rifle slings. Even so, you have other makers of specialist slings that offer other benefits such as slings with thumb loops, for ease of carrying and ensuring that it stays in place on your shoulder when your thumb is in the loop. There are stretch slings that can be used as a single sling but can be split into two halves, due to a very discreet yet very heavy-duty zip that runs up the middle so you can wear the rifle like a backpack and be hands-free – again, for negotiating rough terrain or climbing up slippery slopes in woodland where you may need to use the tree trunks as supports as you climb up any steep rises; another accessory where the list is seemingly endless.



The hunter who chooses and uses the right accessories is better equipped to be more efficient in the field

The downside is that they can snag on clothing when you shoulder the rifle, catch undergrowth as you move, and swivels ‘click’ making noise at a crucial moment, or the strap itself rubbing against the body can be a potential noisemaker. However, don’t forget that QD sling swivels allow the sling to be removed in an instant should you need to be dangle-free. I find a sling to be of most use when I need to carry the rifle and be hands free for negotiating very rough terrain.

Suffice to say a suitable quality rifle sling fitted with QD sling swivels is very handy to have.

Backpacks



Quick detachable (QD) sling swivels make removing a rifle sling an easy task

Since I first began hunting, seriously, I've taken my bits and bobs in a rucksack (or to give it the now 'in-vogue' name, backpack) and carried off my game in a heavy-duty plastic bin bag. In the early days, I used ex-army 'ruckys in DPM, then I began using various sizes of Bergens, and even a selection of ramblers' waterproof packs.

There's a seemingly ever-growing selection of top quality 'ruckys' now available to suit every eventuality. Manufacturers such as Deerhunter, Harkila/Seeland, Jack Pyke, Viper, Ridgeline and, my personal favourite for this type of gun luggage, the Ranger series of backpacks from Napier. There's a comprehensive range of different sizes

and configurations – even a very unique pack, which I’ll detail later in the chapter, devoted to hi-power, FAC-rated air rifles. As a teaser I’ll just say it allows you to carry a 3L diver’s bottle on to your shoot held securely within the rucksack itself.

Hydration packs, as they’re known, have become far more popular and can be purchased in various camo patterns. The main leaders in the manufacture of these packs are Camelback and Geigerrig, amongst others. Hydro backpacks all have a facility to carry an internal hydration bladder (usually with a capacity of 2-3L), with the feed hose running down attached to one of the shoulder straps for ease of wearer use.

As you can see, we’ve really come a long way, even in view of the type of luggage available that we can carry accessories in.

One feature you’ll find useful which is incorporated in many well-designed ruckys, is a strengthened and moulded rubber or heavy-duty rubberised base; this ensures that the contents inside at the bottom keep dry when placed on the ground. A simple but clever way of keeping out the water from damp grass should you inadvertently plonk the pack down in a puddle. The size of pack you choose depends on how much gear you intend to take with you, but as with a gun bag it can be left in a safe area, to return and get larger items when needed, such as extra clothing or even food. Look for ergonomic and well-padded shoulder straps, a sternum strap and a strong, well-appointed waistband (all adjustable of course).

If you intend walking far with it on your back, a rucky with outside cargo pockets and/or strong, elasticated, side mesh pockets are handy so you can access certain items quickly without having to rummage through the bag. One factor pertaining to rucksacks is that I recommend you don’t leave them on while you are actively shooting. Not only will you find this tiring but it will also interrupt and hinder the shooting stances and holds you’ve taken the trouble to master. Even a small bag can catch a slight crosswind, knocking you off balance usually at the very moment you are going to take an opportunist shot; shoulder straps catch, and some hinder the rifle held at the shoulder. Numerous problems can be encountered. As with most accessories, though, they can be useful. As they now come in very effective camo designs, I often use a pack as a rest and as part concealment, forward of my shooting position. Even so, and as I’ve recommended earlier, it’s best to take out the kit you need and

leave the bag in a set safe place. Just don't leave important items such as wallets, car and house keys, shoot permission or your FAC licence in it.



There are specialist rifle slings for specific hunting situations

There are even backpacks with the facility to hold your rifle on the outer rear of the pack, being held secure and protected until needed. Useful if making a long walk, and I certainly see the potential for their use for some airgun hunting situations I've found myself in, particularly when you might happen across a shot along the way and need the rifle to be quickly and easily accessed.

Generally, though, they're quite specialised kit with the exception of those 'yomping' to far away shooting positions over treacherous ground.

I've already mentioned waist bags but the smaller bum bags are handy for taking a few extras with you. They're especially useful if wearing a ghillie suit or mesh oversuit that has few or no pockets. They're handy for ammo, spare magazines, spare face veil, gloves, quarry calls, your shoot permission and other personal items including your mobile phone. More on these accessories later, but suffice to say; waist bags, bum bags and backpacks or hydration packs are all very useful for the situations they're designed for. Personally, I feel at times they're another essential.

Before looking at what you should be carrying in your pack, a quick word here of carrying game off your shoot. You've probably read many times how you can carry rabbits in a rucky after you've shot them. I've done this but even three, and certainly four, full-grown rabbits get very heavy and a rucky soon starts to whiff. As I've already said, I don't continually 'yomp' around my shoot with the pack on my back but the rucky is a convenient way to carry kit further towards the shooting area – for me it's an extension of the off-road vehicle. In relation to shot quarry, rabbits are usually hocked and hung on a branch. Woodpigeon are placed above ground, wrapped in a small swing-bin-liner bag to keep off the flies – and if actively hunting, all are collected as I return to my starting point. Other non-edible species such as crows and magpies are thrown in ditches for scavengers or if there are a fair few I'll bag them up and take them to an incinerator. Fortunately, the main shoots I frequent have incinerators on site, meaning I have easy access for the proper disposal of the carcasses and my hosts see how much I'm helping to alleviate their vermin problem. Unfortunately, on a bad day they see that I've not done that well – but as they say, 'c'est la vie!'



Hydration packs are becoming more and more popular within the hunting fraternity

Kit Bits

Some of the following are essentials while others can be added when finances allow or indeed if you feel you need them. Also, not everything will be needed every session – so you can tailor your pack to suit the circumstances but always be mindful of the unexpected eventualities that could occur. Another factor in choosing what to take is the duration you intend to stay in the field; the weather forecast and, of course, the season of year will dictate what extra you'll need, or should consider taking, in terms of clothing. In no specific order here's a run-down of accessories that I'd consider for virtually all hunting sessions.

An observation aid such as a pair of compact binoculars or a monocular is a must-have piece of kit. Scanning around using the scope isn't the most advisable way of observing your shoot. It's better to have a dedicated observation aid for scouting the land up ahead or looking up to scour the treetops. Compact binos are most popular, but as optical technology has improved we now have many compact models with a specification of either 8 X or 10 X 42 with rubber-armoured outer casing to help protect them from knocks and scrapes. A good quality pair won't cost the earth and most optical manufacturers offer good quality product including small, rubber-armoured monoculars. Usually, they come with a quality carry case and have a lanyard for hanging around your neck. If you've read through the previous section on observation then you'll certainly realise that binos are essentials, but when observation is done, when on the land shooting, I'll as likely and more often than not choose a monocular.

I advise the use of a compact monocular as they're very small and can be stored to the side in a pocket, and taken out for a quick scan around when needed. It amazes me how small and powerful some are, and since acquiring an ultra-compact Luger 6 – 18 monocular, it's usually on its neck lanyard, tucked into my top until needed. There are many other handy monoculars and compact optics so I recommend you go and see which type you prefer.

Double Vision

Almost everything that applies to a scope as comprehensively detailed in Chapter 2 also applies to virtually any optical piece of equipment we, as hunters, use to magnify a target, but in the case of a binocular, there is a definitive difference of types, which is the internal optical construction. While a scope has an internal prism that is used to reflect light and turn the magnified image the right side up, with binoculars you also have to decide if you want a pair that are of roof prism or porro prism design. Binoculars work by using a prism to lengthen the light path between the objective lens and the eyepiece. Lengthening the prism, therefore, can increase the magnification without increasing the length of the binoculars. Porro prism binoculars have objective lens tubes that are

offset from the eyepieces; the prisms angle from the eyepieces to the objective lenses. Roof prism binoculars have two straight tubes, so more often than not this enables them to be smaller and more compact in size. Therefore, many assume that porro prism binoculars are going to be more expensive because they're bigger and more substantial, but roof prism binoculars can actually cost more to make due to the more complicated manufacturing process for the internal angled prism. However, porro prism binoculars score again because they often give a higher quality image due to less internal light loss – in turn this makes the sight picture clearer and often more defined. Although roof prism designs can have a comparable optic, their compact design and complex prisms make the higher-priced roof prisms a better bet for those looking for a higher quality binocular. In my opinion, for the airgun hunter, it's not an easy decision to make as to which type to choose; do you want the more compact roof prism binos, or the less expensive quality of the porro? Consider this; when you factor in the range over which the 12ft lb rifle is effective, you'd think it an easy choice.

However, check back at the chapter on observation. Then you'll realise we can't always get away with lower price observation aids if we really want to scour the land from a good distance away, so as not to disturb quarry we are intending on finding and eventually targeting.

Here are a few guidelines to look for in relation to observation aids such as your binos and/or monocular;

- **Lens coatings** – Check the specification sheet for level/amount and quality of coatings as you would your scope.
- **Eye-cups** – Check the eye-piece twist-up design and/or if they have them fitted, the rubber covered or extended, shade design eye-cups. Ensure that they suit your eyesight and feel comfortable. Some designs, even if they do allow the shaded portion to be folded back, won't suit everyone – particularly spectacle wearers.
- **Objective/Front lens size** – Check if this will be of sufficient size and good enough quality to suit the light levels you usually hunt in.
- **Sight Image Quality** – Check the sight picture viewed in several lighting conditions, but if only one is available during your visit to access this, look for blurring towards edges of the sight picture.

Ideally, it needs to be as clear and bright as possible to the very edges of the image viewed through the eye-piece – again, just like your scope.

Just as useful is a fixed magnification, laser rangefinder monocular. There are some models which are very good value for money, should you require them, and, if anything takes the guesswork out of range estimation then, in my book, I reckon it has to be a useful aid. Granted, you should be sufficiently skilled in range estimation before even attempting hunting, but there's no law saying you can't add a rangefinder to the kit list. Some have gimmicky features an airgun hunter would never use such as 'incline to target', but those that have impressed, even though I still use my old faithfuls, Bushnell Scout and MTC Rapier, are the Nikon models and NV specialists, Thomas Jacks, have some excellent rangefinders of monocular or binocular design.

Send and Receive

Even the most hardened traditionalist must realise the benefits of carrying a rangefinder. Compact, highly portable and at the push of a button the ability – if used correctly – to give us a range to a target that is usually ± 1 yd precise. All rangefinding devices that use a laser work on the same principle; a pulse of invisible laser light sent out to a target which then reflects back to be received by a receiver lens. The unit then calculates the distance due to the time it takes for the light to do this round trip from unit to target and back again. In the simplest way this is how a laser rangefinder works. Most popular models are those from Bushnell, Hawke Sports Optics and of course the one that many are judged by, the models Leica produce. They're obtainable as compact, monocular-style devices, or binocular design, but whichever one is chosen, the workings are the same. Some models are rated for higher distances and these are of most benefit for deerstalkers and daytime fox shooters.

However, there's the problem; a laser rangefinder will only work in daylight, or if used at night, it has to be used in conjunction with a light source. Even in daytime, if the light levels are very low, laser rangefinders struggle to give accurate readings.

Whenever you can take two or three separate readings of the target, this will ensure that you achieve positive range estimation.



A compact hand-held laser range finder takes the guess work out of longer range shots

The airgun hunter doesn't need a top-end expensive rangefinder due to the ranges at which he is able to take a sensible shot, but quality kit is nice to have. Moreover, a compact and highly accurate one out to 250-300 yards or so will be very reasonably priced and you can purchase them more often in a monocular style, or usually and more expensively in compact binocular style.

Next up is a basic first aid kit. This doesn't need to be overly comprehensive, but the contents should be kept safe in a watertight

container and at least should include; wet wipes, antiseptic wipes, a small bottle of antiseptic cream or spray, painkillers, a selection of plasters, sterile gauze, a small roll of bandage. An army field dressing kit is a very useful addition as are tweezers and small scissors – the usual basics. Even this has now been addressed by certain manufacturers and you can purchase First aid kits in waterproof pouches – some in camo! You can add what you need as to what you feel is missing, but the pouches are a great aid for keeping everything together relating to first aid.

Spare ammo is an obvious requirement. You can tip a few in a jacket pocket (not advised), or better still use one of the quality pellet pouches I mentioned in Chapter 4. If you're a longer session hunter, take a cold drink for warm weather, but avoid sugary drinks and certainly no alcohol, they'll make you thirstier, the latter also of course impairing judgement. A water bottle is simple basic kit, not only to hold water to quench a thirst but also to rinse hands and obviously to clean any cuts you may accidentally suffer. There are quite a few different sizes around but include a small container of liquid soap or hand sanitiser, not forgetting a small hand towel, along with the obvious uses you might have for tissue and/or some toilet roll. Some take rubber or disposable surgical gloves for messy tasks such as gutting. If you use these, keep a few zip-lock plastic bags handy to put them in when used and take them home to dispose of correctly.

If out and about in cold weather it's certainly very advisable to carry a hot drink and it's advisable to pack a spare jumper or fleece. Neck warmers are also useful to keep out draughts.

An ex-army poncho is often ideal and rolls up to a compact size for storage. Incidentally, another bonus of a poncho is when out hunting and a sudden shower does come over your area. Afterwards, if you intend to lie on the ground in ambush, use it as a groundsheet so as not to get damp due to pressure transfer through contact with the ground. It'll usually open out further and offer a solution to lying on the gun bag.



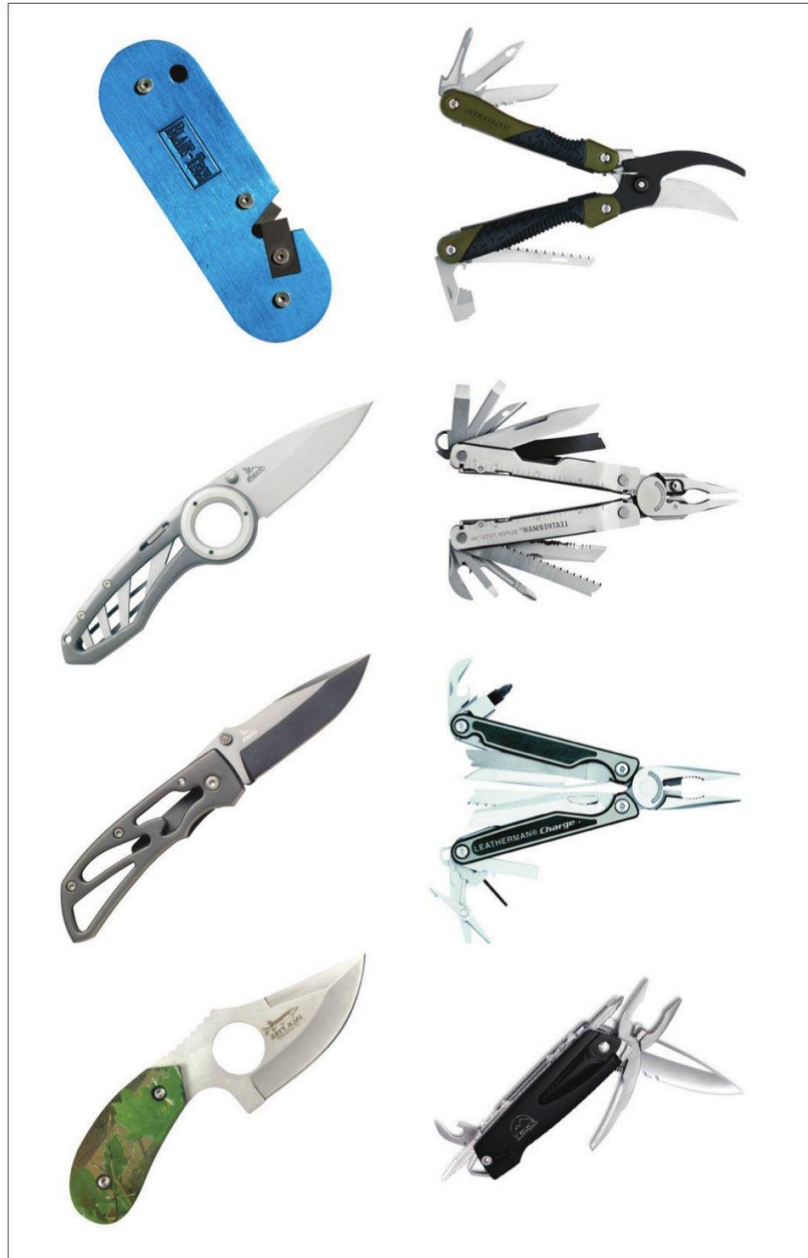
Typically a first-aid kit should contain the basic necessities

Now, while many cover themselves, they forget to treat the rifle with similar respect. You should immediately put it back in the gun bag, but if caught out away from the bag then I now use a rifle-wrap, as they're termed. These cover protectors are designed to roll up into a very lightweight and discreet size to be kept on your person.

Next up is a knife. A traditional and now familiar Swiss Army-style knife or Opinel penknife is not always the most useful to take into the field – although many still do. Essentially, in the field you'll need 'field cutlery' of various types, especially for paunching or preparing baits. Ideally, have a folding lock knife and a small (3 – 4-inch) fixed blade skinner, and don't forget the sharpener as knives have an infuriating habit of losing their edge at the least opportune moment. Like all accessories mentioned, we're spoiled for choice, but for quality, look to brands such as Gerber, Leatherman (Buck Knives) and suchlike.

Now to the many useful pocket-size multi-tools: So many have emerged since I first wrote *Total Airguns* that this is again a very saturated market, but on the whole, stay with the named brands and you won't go far wrong. They're handy for field repairs and all manner of tasks that can face you as you go about your shoot. It's surprising how often you'll find the pliers, wire cutters and the various knife-edges and screwdriver heads they contain of use. However, I'm sure others have seen it written, 'they're useful for nipping up screws on the rifle.' That makes me cringe. There's no way you should need to be doing quite intrusive work on your rifle body or action while in the field, hunting. If

so, you've not been keeping the rifle maintained properly. Screws don't just suddenly decide to become loose so that you notice them while out hunting. Look to the Chapter on Gun Maintenance for advice on combating potentially troublesome hunting session faults before they start.



A selection of multi-tools, folding lock knives and a small blade sharpener – are all useful pieces of field cutlery

Tips for Choosing the Multi-Tool Most Suited to You

- Scrutinise all dimensions and weights of these tools. Remember, they're designed to lessen your load.
- Carrying options – suitable for your needs, non-existent or optional-extra type of pliers head required – regular or needle nose and gape (width) of pliers-head when open.
- How the handles/tool feels when held in operation. This applies to pliers and other tools, particularly the main ones you feel you'll use most.
- Are the other tools the 'multi' features that you require.
- Check what type of pivot points are used, how they and the lock-out mechanisms work.
- Do they suit the build quality of the other features? Remember, these areas take a lot of strain.
- Select a specific knife design that you want the multi you choose to have as a main feature.

Stay Sharp

A blunt blade on a folding lock knife or multi-tool/knife is not a good blade; in fact, it often can be a dangerous one. Since the launch of the superb and acclaimed original Blade-Tech Pocket Knife Sharpener hit the shops, they've now developed an improved version – a MkII. Featuring a tungsten carbide edge, it's now capable of sharpening the dulllest blade and due to the design it can be used on more tools and takes far less time in helping you to stay sharp, as it works on both sides, sharpening them simultaneously. It comes in a heavy-duty canvas carrying case with a Velcro flap closure and belt loop. If your bladed tool has a serrated or part-serrated knife edge then the sharpener can be used on these as well. Secateurs are handy as is a compact, folding wood saw; ideal for trimming hides or cutting foliage to use as cover.



At one time the airgun hunter would have chosen to use a Swiss Army-style knife or an Opinel

Just as handy to have in the kit bag is a reasonably-sized camo net. Even if you don't initially intend to build a full-size hide, you need something that packs down small and will still fold out to offer a reasonable amount of screen should you find yourself requiring the use of extra cover. Many companies offer a handy-sized piece of net and the correct pattern of camo netting has often saved the day, just draped over me to disguise my static position. You often need to cut a few slits here and there for shooting through, but throw it over your person, or some branches and foliage, and you've got yourself an instant, covered shooting position. More on the use of netting will be found in *Hunting Techniques*.

Also, let's not forget how handy a roll of camo tape is, indeed, H.S No-Mar tape is a must if you want to cover or break up the outline of your rifle action, stock or barrel.

Even if you don't intend to hunt at night, dusk soon turns to dark and a small torch such as a Mini-Maglite, or better still a small LED headlamp, is very handy to have. It not only makes the walk back to the car less hazardous but light sources are also very useful if you spill pellets in a hide. You'll hardly find the lion's share in the gloom, but the lead will glint in torchlight meaning that more can be found. I mention the more up-to date multi-function LED headlights as these, more often than not, have variable white beam, and other colours to switch over to if you're wanting to save your natural night vision when out after the nocturnal quarry species.

Also, the better brand name manufacturers such as Cluson, Gerber, Petzl and Fenix have flashing modes for signalling for help and many other features that are useful in the field at night.

Always carry a copy of your written permission to shoot and although many feel them intrusive, a mobile phone is a valuable friend to have. You can always turn it off when not needed, but don't rely on the phone exclusively for help should, God forbid, you have a hunting accident while out on your own. What if the battery runs flat or you can't get a signal? So take a back-up, a few coins for use if you can reach a public phone, but for safety's sake, an emergency whistle is the least you should have.

There are of course many other accessories to aid the hunter such as Paracord rope, quarry calls, a bipod or shooting sticks, and bulkier items such as decoys, pop-up hides and traditional hide poles. However, I feel strongly on the use of pop-up hides and the benefits they offer the airgun hunter, and there'll be much more on these superb pieces of kit and what to take inside in the chapter on Hunting Techniques.

Silence is Golden

Without a doubt, one of the most popular accessories, which I feel is a necessity, is a silencer or as they're more appropriately termed, a sound moderator. Some rifles come with integrally fitted silencers whilst most others, especially PCPs, have the muzzle threaded or have an adaptor to accept their own optional silencers, or another company's as long as it has a standard ½" UNF thread.

Now, the reason we as hunters use a silencer on any rifle, but more so on an air rifle, has I feel become mystical and the facts somewhat distorted. In truth, you'd hit your quarry with an unsilenced air rifle because almost instantaneously after firing, if your accuracy is of the required level, then your quarry should be dead! But the reason silencers are beneficial is that they allow the airgun hunter to go about his business without overly disturbing the area. The trouble is, this doesn't hold much weight when you consider the sound a pellet makes on impact with a rabbit's skull. It can often be as loud as an unsilenced air rifle and what has to be considered is that the sound is usually right next to quarry feeding or sitting alongside the one targeted. Also, modern quality-manufactured silencers are generally quite efficient at taming muzzle report. I've used a decibel meter set down-range and the pellet zipping through the air towards the target, even at 25-30-yds out, is louder than the muted muzzle report.

Baffling

Almost all brands and sizes of silencers work on a similar and often a relatively simple principle. The air that exits the muzzle directly after firing a pellet hits what is known as 'still air' and it's this that causes the crack heard on firing, not because the pellet is emerging from a 12ft lb air rifle faster than the speed of sound. You could term this as the after-shock. To combat this, silencers need to utilise internal chambers (baffles) to help deaden or deflect the blast of air following the pellet as it travels through the silencer without reducing the pellet's velocity or flight path to a degree that is unacceptable for it to be effective at cleanly killing the target. Simply put, the pellet exits the muzzle as it should, while the air following exits the muzzle at a much reduced pressure.

These chambers inside the silencer can be what are termed 'active' or 'passive' baffles. There's also the relatively new (for airgun use that is) reflex design of silencer.

Before technology progressed to the level it is now, manufacturers would cram as many baffles inside the silencer as they could, often even making overly long silencers so they could add even more. However, any traditionally designed silencer adds extra length to the rifle (reflex

designs add much less than conventional types) so in general it's a balancing act of design; placement of baffles, number of baffles and length of silencer, that dictates its effectiveness. Also, the effectiveness of the sound deadening felt that is wrapped around the workings, or better put, the open/honeycomb cylindrical portion of an internal baffle to combine with the complete internal layout to try to create a unit that really is able to reduce muzzle report.

Active baffle types originally used a piston to absorb and cushion the air, now they more commonly use springs to 'revers-abrate' (that's my way of describing it and should be in the Oxford English Dictionary), the blast back towards the muzzle, in turn cancelling forward momentum of the exiting blast of released compressed air.

Alternatively, passive baffles are basically stacked inside the silencer body with spacer washers to enforce the distance each baffle is set away from the one next to it.

The major plus point of the silencer is that it doesn't betray your shooting position, so once the quarry has scurried for cover or flown off after a comrade has fallen, the specific area they've vacated is the place the quarry is watching, not your shooting position. Should both remain undisturbed, by you not giving away your position, say by movement – and in some cases it only needs to be a matter of minutes – quarry will return, especially if it's a favoured sunning spot or has rich pickings. This often allows you more shots at quarry in approximately the same area and at the same range as the first. Because of this behaviour, it's also one of the reasons you shouldn't be in too much of a hurry to retrieve shot quarry, only if it has fallen badly in an untidy manner or you need to administer a coup de grace. Also, a rabbit lying on the ground doesn't seem to deter others from returning back out to feed. Indeed, I've had rabbits come out and actually go over to sniff and nose around the deceased scut tail. Many times I've had crows and magpies fly in to take advantage of the freebie meal giving me even more quarry to target.

The subject of which silencer is best is very much down to personal choice, as the quality and choice of name brand quality silencers is, as you'd expect, far greater than it was only a few years back.

Sandwell Field Sports manufacture a range of remarkably quiet moderators as do V-Mach and all on request will custom-make virtually

anything you care to order. To name a few of the many highly-regarded sound moderators at the time of writing; Weirhauch's own moderator originally designed for their HW100 PCP surprised many, the Milbro Huggett is a much muted silencer and comes in a wide range of configurations to suit many popular hunting PCPs. There are so many others worth considering. For instance, calibre specific 'cans' were once just available from custom houses but BSA have now created a VC (Variable Choke) Silencer. Just by changing a grommet at the end of the silencer to reduce the aperture changes it from being suitable for .177 to .22 and it does work quite noticeably better.

Daystate have progressed so fast that they've adapted their Airstream moderator, completely redesigned the internals and taking their cue from our centrefire cousins, have manufactured off-the-shelf reflex moderators that sleeve back over certain models of their rifles; these are incredibly quiet and light and add barely 3" in overall length to the rifle. In fact, initially the development of their carbon-fibre models came from an idea Tony Belas had after discovering one of the quietest silencers he'd heard – this was the Manders Silencer manufactured in New Zealand.

Unlike most silencers that screw onto the end of the muzzle and increase the length of the rifle, the reflex silencer only usually adds half its overall length as the rest neatly sleeves back over the muzzle and barrel, attaching internally in the middle of its length. The air escaping from the muzzle is then defused towards the back of the silencer, while any air still travelling forward behind the pellet travels over a series of (you guessed it) baffles. The result is a silencer that protrudes less from the muzzle but gives a full-sized silencer effect. As the muzzle screws directly into the baffle, machined from solid aluminium, and the distance to the end of the silencer is much shorter, tolerances can be much tighter. Daystate say that this completely removes the chance of misalignment and a pellet clipping the end of the silencer. The outer body of the silencer is manufactured from carbon-fibre so as well as being light in weight, it's also cosmetically attractive and is given an anti-glare matte black finish.

Needless to say you'll soon come to appreciate the need for a silencer on a PCP and the benefits of using a silenced air rifle – especially when hunting at night.

Something I feel is a much overlooked accuracy aid when shooting over certain terrain are height-adjustable shooting sticks. Long associated more with fullbore shooting, used wisely, all rests such as shooting sticks or monopods can be invaluable aids to help steady your aim.

Although I mention the benefits of traditional shooting sticks, there are now various configurations so they can either be deployed more quickly, or adjusted far easier and faster due to the height adjuster for the legs being set at the head.



Some companies are now producing silencers of a reflex design such as the Daystate Airstream MK4, as shown

For the airgun hunter, in my opinion, nothing is more useful and handy than the bipod. Again, there are so many different bipods that the mind boggles which to buy. The Harris is very much an industry standard while some favour the B-Square brand as it utilises a different method for deployment.

A bipod is a detachable unit comprising a mounting plate and two stabiliser legs that attach to the rifle to form a rest to steady your aim, usually while shooting in the prone position, but extendable models allow more height and can be used for shooting from a sitting or kneeling position.

The basic bipod available is little more than two toughened ABS or high-grade, black, anodised aluminium legs attached by a hinge with a half-open cup that clips onto the barrel. More beneficial are bipods with spring-loaded legs that fold up out of the way when not in use, plus adjustable legs.

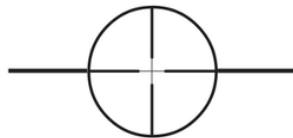
These usually fit to the rifle by attaching to the front sling swivel stud. In fact, sniper shooting from a hidden ambush position with a PCP on a bipod and using a silenced rifle enables the hunter soon to put a good bag of bunnies together. Used this way, these are two accessories that perfectly complement each other – especially with the aid of good camouflage and fieldcraft.

Before we leave this section, a quick word or two on other accessories often mentioned for use in a hunter's pack. You'll probably have read that it's wise to have a space blanket, a compass, mirrors for signalling and other such boy scout-motto-fuelled paraphernalia. Take these if you must, if they help make you feel secure but why this advice continues to be foisted around is anybody's guess. Granted, if hill walking, they can save your life, but, the average airgun hunter will probably never venture so far that he'll need these survival aids. In fact, more in your mind should be to hunt sensibly and safely and certainly don't venture into or on to areas that are ridiculously remote or so obviously unsafe. I've hunted over some very rough terrain and I've never once felt under-equipped or ill-prepared, but then again, I've not stalked the banks of the lower Zambezi or in a Peruvian rain forest – yet!

Having said that, I must quantify my statement by mentioning that the Bear Grylls endorsed range of survival tools and knives manufactured and marketed by Gerber have caused great interest in the airgun hunting community, not least because the knives, multi-tools and other such kit are very well designed and highly practical for field usage.

To wind up this chapter, I must reiterate; do take the basics, the essentials and at least have a spare full change of clothes in the car, spare shoes or trainers, a car travel blanket should you get snowed in, and a folding shovel is handy if you need to dig out the back wheels.

Keep safety as a watchword for your shooting, and equally, be watchful to your own well-being as you go about your sport.





The bipod is a very useful accessory, especially when shooting prone from behind cover

10

The Changing Seasons

An Airgun Hunter's Year

Now it's time to examine the changing landscape and weather that the different months bring, with the effect this has on the quarry you seek. Also outlined are the year's countrywide farming and agricultural landmark times that indicate where, when and why airgun hunters should be actively using certain hunting methods and targeting specific quarry species. As seasons seemingly aren't as cut and dried as they once were, we can even have summer-like conditions in late September, and winter weeks that are so mild you'd be forgiven for thinking it was spring. Take prevailing conditions into consideration when planning specific hunting trips, but use the following as a guide to what is most likely to be happening through the months of the year.

January – February

The calendar year starts in January, of course, and as the airgun hunter isn't currently governed by any game laws or close seasons, unless he is shooting seasonally protected quarry, I'll start here. Most if not all parts of the country will certainly have experienced not only their first hard frosts of the year, but the more northerly areas will also have had snow. Hunting in these conditions isn't impossible, but it is impractical enough for me to advise only the extremely dedicated to try their hand in such extreme conditions. I've been out late at night fox shooting 'on the lamp' and been amazed at the lone rabbits that venture far out into frost-ravaged fields. Why they're out and what they find to eat is a mystery to me. The rabbits I've shot at this time of year aren't on my most

frequented shooting areas, but when I've been kindly invited to join others shooting over moorlands with all-round rabbit activity, and areas with large rabbit populations. It seems the rabbits that inhabit the upper parts of the Pennines and both the Highlands and Lowlands of Scotland are a hardy breed! It goes without saying, at this time of year, that if I'm hunting in these situations I'll be very well wrapped up, but to be up and out in time to witness a bright wintry sun breaking through a clear blue sky over snowbound hills or frost-tinged fields is a wonderful sight to behold. When shooting in such extreme conditions, I'll hole up in ambush near any natural cover. Usually dry-stone walls or hedgerows are favoured locations, but then only if I've been told by my host that it's near a spot that rabbits regularly frequent for their brief spell in the early morning sunshine. It's not uncommon to encounter crows or magpies, and this is a time of year when baiting them with a slit-open rabbit carcass will do the trick. Corvids are used to finding carcasses, especially if the weather has been particularly harsh.

January must be amongst the worst, if not the very worst, of times for planning any hunting trip. Woodies can be found huddled in sitty trees, but you'll have to hope you can get near them, or preferably have done some serious planning so as to be hiding in ambush and waiting for them to fly in and seek shelter.

By February, if your land has pheasants on it you might have to put woodpigeon roost shooting on hold until the pheasants have left the trees. Not only do you not want to disturb the 'stubby-winged ones', but also it doesn't help your relations with the keeper if you shoot one by accident. The air rifle is often the best option for dealing with certain types of vermin in the woods, and although the shotgun is still widely used, at this time of year many keepers are coming to realise the benefit of the air rifle, because it's almost silent. Nothing is so sure to have pheasants high-tailing it to live in another wood than shotgun blasts! Rooks will be returning to re-establish themselves at favoured nests in the rookery, and the young that escaped the previous year's short springtime brancher cull will swell their ranks, building nests anew.

At this time of year, my outdoor shooting is usually limited to roost-shooting woodpigeons, wandering around the woods for opportunist shots at squirrels, and shooting corvids over baits or, where possible, on

feeding areas. Crows will still be flocking together as they move around fields in search of food, usually in the company of other corvids such as jackdaws, and they'll be finding food in the creep feeders that are put out in the fields to fatten up the sheep. If you get within range of one of these areas in a suitable hide, a good few sessions can be had before the birds move to steal feed from a safer feeder.

Even magpies seem unusually sociable in February, hanging around together in small and sometimes very tight-knit groups, but by the end of the month it's typical to see that some will have paired up and be back repairing old nests in preparation for the coming breeding season. Note where their nests are and keep watch for activity around them. However, if you're not overrun, don't disturb magpies too early as there can be opportunities later in the year to bait-up nearby, as soon as the young leave the nest. Alternatively, you can annoy the whole family with a strategically placed little owl or kestrel decoy, which they will mob. As February progresses, you'll see them less frequently over open areas of land, as the pairs will be staying close to the nest areas, often with another noisy suitor in tow.

Don't ignore the open fields for chances of shots at other vermin. Stubble fields and set-aside areas left from autumn can see a glut of flying felons, and for the shooter in a well-chosen hide position they can yield surprising results. Typically, in the woods the woodpigeons will be stocking up, probably feeding on the last of the ivy berries and the like before eventually moving on to rape fields later in the year. (There'll be more to consider on berry feeding woodies towards the end of the year.) If it's windy, you'll find them sitting out the bad weather on the lee side of the woods, and depending on how severe the weather is, they'll sit lower in the trees because they don't like getting bashed around by the stormy elements. Rainy conditions will also see them perching lower than usual. Squirrels can often be found scratching around in leaf litter on the woodland floor, and at times they're even seen foraging alongside the woodpigeon which will be frantically pecking around the bases of the trees. The squirrel can be taken by surprise by the soft-footed shooter, as it may have its head so deep in the leaves that it won't hear your approach. The woodie, on the other hand, is never so obliging or foolhardy when on the deck.

February is definitely a month of change. Many airgun hunters of my acquaintance – and I must generally agree with them – feel this to be one of the best times of the year for hunting, mainly in wooded areas before the branches become covered with leaves. Walking these areas comes high on the list, as you can encounter a variety of species ranging from most of the corvid family to the woodpigeon and grey squirrel. If you're fortunate enough to be able to shoot around old buildings in rural areas, you can often encounter jackdaws, and in some areas certain broad-minded representatives of the clergy will allow airgun hunters to take discreet walks around their churches and grounds, as they know that vermin do not respect such places. They can be havens for feral pigeons, crows, jackdaws, rooks and squirrels, to name only a few. Obviously, in places such as this you need to use your discretion as to when to go shooting. It is not good practice to be seen sauntering around in full camo just before or after worship, but go when people have gone home, and your quarry will still be there. Many a productive afternoon can be spent walking around taking opportunist shots.

By the end of the month, spring will definitely be in the air and the daffodils and snowdrops will already be well on their way to flowering, a sure sign that a change of season is underway.

March – April

With more light to shoot by in the mornings, and a little more in the evenings too, the countryside is waking up for the airgun hunter. It's a good time to be out and about as the fresh smell of spring hangs in the air. The typical weather is more accurately described as pleasant rather than really nice, but on the whole, a vast improvement in conditions will be seen as we progress through the month. The weather may still change suddenly, and it can catch out those who are too optimistic and not prepared for variable weather. During these months rain can be the hunter's downfall.

The 'mad march hare' of lore and fact will be seen in certain parts of the country, and although it is a legitimate species to be tackled with a powerful FAC-licensed air rifle, many now recommend the animal best left for the .22 rimfire rifle or the shotgun. If you want to try your hand

with an FAC hi-powered air rifle and there are plenty of ‘long ears’ around, I say keep the range sensible – and don’t forget your game licence!



Come early spring, corvids such as magpies are already paired up and in many cases rebuilding or building new nests

Corvids will have paired off and be getting ready to lay the first clutch of eggs, while the first young rabbit kits will be out, very innocent and foolhardy as they learn the ways of the natural world. Many fall as easy prey, being mopped up by foxes, stoats, weasels and buzzards. The sporting shooter will leave them until they’re of a size worth preparing for the pot, but take note of the area as it’s a place to target later in the year.

Generally this is the busiest time of year for serious pest control, because the adult rabbits are easier to target before the foliage starts to green and thicken up. Rabbits will also now be much more active at night, and at dawn and dusk. You’ll notice that the burrows are starting to be redug and run through. Fresh scrapings and earth near entrance holes shows that the rabbits are back in business. They’re likely to be much more active during the night, and the optimum times are the first couple of hours before and after dawn, which comes earlier as the weeks pass. If

you're targeting them at night, it can be very cold and temperatures can quickly drop below freezing, just as happens in autumn, even though the days may have been pleasant and at times very sunny.

Tackling the corvid population before they breed is important. Unfortunately, you'll have to rise early, as the dawn still seems to be trapped in the night and it can be hard to get up in time to be in position to catch these earliest of risers. Try baiting or ambush tactics for both crows and magpies, although you will find that these will decrease in effectiveness as the birds find mates or re-establish acquaintance with old flames, and go off to do what comes naturally. Baiting can be done again with a vengeance, though, once they've raised a family. The woodie roost shooting will have all but dried up by now, not only as the trees get their leaves but also as the birds pair off and leave established communal winter accommodation to find individual nest sites.

By this time in the season, if not earlier, you should have either repaired natural hides, or be building new ones for reaping rewards from summer into autumn. If you see rabbits establishing a new warren, now's the time to build a hide within comfortable striking distance, and by late summer you'll have a hidden shooting position just waiting to be used.

May – June

They say 'don't cast a clout until May is out'. Many will have heard this old saying, and it's one that usually holds true. Rain can come at any time, but those fresh spring mornings can also still bring a chill, as will the evenings, but on your shoot this is definitely a key time of year to hit vermin hard. Corvids are preparing to raise further broods of potential problems. Gamekeepers cull magpies with Larsen traps, and even large crow traps nab their share throughout the breeding season, but where possible airgun hunters should use their rifles to help eradicate those birds that dodge the traps. The first rabbit kits you saw not many weeks ago will soon be ready to breed themselves. Everywhere you look the countryside is growing greener. Bluebells erupt into full bloom, forming carpets of colour wherever they're found along hedges and the woodland floor, while the fields are getting full of long grass and tall stalks of barley, wheat and oilseed rape. Land animals have plenty of cover now to

hide in, and tree dwellers have much more foliage from which to call and watch.

May 12th is still known by many as ‘brancher day’, and the annual beginning of shooting young rooks preparing to leave the nest is part of the tradition in many country areas. Although the young branchers in many areas can now be seen to emerge as early as April, May 12th is still the particular date that many choose to go out and stand underneath a rookery waiting for a youngster to venture forth. Rook shooting is a controversial subject, however, and some are now of the opinion that there should be some control over this practice, especially if the species isn’t in plague proportions locally. It seems that more and more ‘officers of the countryside’ are deeming rooks the farmer’s friend, not that I’ve met many farmers – especially sheep farmers – who’d miss their presence on their land.



When the weather starts to warm up, time can be better spent during the day shooting around the farm buildings



Young rabbits are naïve to the ways of the world and betray the presence of warrens

As for activity in the fields, this is my favourite time of year for hunting rabbits with dedicated night-vision equipment. Early summer nights are very appealing, and this is an exciting branch of our sport that is certainly worth trying once you're proficient enough. Rabbits are very much more active by this time of year. If the weather is fine, they'll be spending a lot more time above ground, both day and night, and that means many more shooting opportunities. Ambush shooting near warrens, feeding areas, and the sides of crop fields they're invading is very productive, and at times it can seem as though you're almost tripping over them. At others, they're very wary; but look for signs that they've been around and it could indicate nocturnal activity.

During the day, woodpigeons in particular might seem to be quite thin on the ground, although there will actually be many about. Rather than settling into flocks to feed on the fields, they'll now be raising their

young. The birds feed sporadically to produce the regurgitated pigeon milk that is food for the young. Magpies that have escaped your attentions or the gamekeepers' Larsen traps and gone on to breed will now be seen in family groups. Often the adult birds will fly along hedgerows with the brood following in an undulating line. These are opportune times to lay baits, and often you can make a good bag, especially before the young birds get too educated and wary. This also applies to young crows, which can be quite comical as they make their first solo flights.

Many grassy fields around the countryside will now have had their first cut of grass for silage, or will soon do so, and this makes rabbits easier to get at once they stray onto the freshly-mown, lawn-like expanses. With a keen eye, the shooter should be able to see them right up until last light; but many rabbits will stay near the rye grass that always escapes cutting. They frequent these areas to feed as well as to utilise the little bit of cover it affords on otherwise flat fields. If the grass has been swirled around and left by the cutter, you'll find good sport spotting them between the rows of cut grass left in the fields to dry. Alongside hedges that border crops, especially alongside rape fields, the rabbits can cause havoc. This damage often goes undetected until the end of May, when the crops are cut only to reveal large semi-circular patches of barren ground, because ever since the seed was sown the rabbits will have nibbled their way out into the field. The airgun hunter should take opportunities to watch for the beginnings of this damage before the rabbits get too established. Carefully walk the edge of a field, looking for signs of rabbit activity, and you can then ambush them over these well-frequented feeding spots, saving the farmer costly losses.

As we come into June the morning light really does break much earlier and the sun goes down far later in the evening. The longest day is approaching, and high summer is just around the corner. All those lovely daylight hours to hunt in! But in reality, especially during a sudden warm spell, quarry can be quite scarce over the fields, while only the dedicated will rise to be out before dawn. That means 3am starts (or even earlier in far northern Britain) to get into position if we're ambushing, and not many will endure that for long. Time is better spent in the longer evening bunny-bashing sessions, while a mooch around the farmyard and

outbuildings can often be the most productive way to find quarry during the day, especially as we get into the progressively warmer months that follow. Birds regularly visit farms and outbuildings to feed or drink at this time of year. Collared doves, feral pigeons, woodies, jackdaws, crows – they'll all gravitate to the outbuildings and areas holding livestock, and corvids especially will hang around cattle and sheep pens. Sit in the open-plan, 'hangar-type' barns, maybe using some form of hide, and await intruders. Many a time when it's sweltering in the fields, time spent sitting indoors in the cool shade produces a steady stream of winged quarry throughout the day.

In some places I've had superb sport shooting jackdaws coming to steal the protein-rich pellet feed put out for livestock. Uncannily, they know the exact time it'll be spread into the troughs, and in some places they'll perch outside on fences, telegraph posts and overhead power cables waiting to descend, after the farm workers have left the building after putting out feed. Be in there, hidden and waiting, and you can have some very hectic, fast-firing early morning action.

Take care on your way to and from the shoot as you travel the country lanes, as farm machinery will be coming and going at all hours to get the many seasonal jobs done. If bales are left bagged-up on grass fields, you can often find magpies and crows pecking around the base and even attacking the plastic, and a cluster of bales is possibly a place to consider hiding up to ambush them in the early morning. If well hidden in ambush at the side of a newly-cut field, don't be surprised to see corvids dropping down to sift through scattered hay if it hasn't been baled.

At the end of June, and certainly as we reach July, they have their young with them, often two and occasionally only one juvenile bird that follows the adults, cawing to be fed. The adults busy themselves picking through the freshly cut grass for anything edible to stuff into the cackling young bird's eager beak. If you're there hiding up in ambush, make the most of this and put something else in the way of its bill!

If you have an appropriate vehicle and the weather is fine – and, of course, if the farmer or landowner gives you permission – now's the time to drive around picking off rabbits at the side of the hedges backing on to the cut fields. You can usually shoot without the aid of a lamp until it's quite late in the evening. Alternatively, if you're fortunate enough to own

or have access to one, you can be out roving those inaccessible areas on an ATV such as a quad bike. Yes, summer's here and it really is getting close to the time for reaping the rich harvest of shooting opportunities that are not only just around the corner, but have also already begun. With the longest day past, you're now hunting in high summer.

July – August

Warmer weather should be predominant, but as this is the UK our unpredictable climate can throw up many surprises. The only sure feature of these months is that there's more day than night, and the sun lingers low in the sky during the evenings. Woodpigeons have bred, and you'll start to see the young birds (squabs) flying with others of their kind, which are recognisable by the lack of a white neck flash. The squabs aren't too cautious, and if you encounter them away from the more worldly-wise adults they can easily be picked out of trees and off the ground if they land amongst decoys. As the crops will now be standing tall, it's time to try decoying birds on to set-aside fields.

At this time of year, it can seem as if the fields are alive with rabbits. Depending on the weather, geographical location, and when the seeds were sown, grassy fields could still be being mown.

This is a busy time on the land, and you don't want to be getting in the way, or putting anybody working on the land at risk. Let them know you're there, because with modern camo you can literally disappear in the undergrowth. Remember that many accidents occur on farms, and you don't want to be one of them. If fields are being tended, keep well out of the way, as you don't want to be a hindrance. You're there to help the farmer and the other people whose livelihoods depend on the land.

August can be a strange month, with autumn just around the corner. Quarry creatures can be found anywhere and everywhere as they search for food, with their numbers boosted after the breeding period. The mornings can be surprisingly chilly, as can the late evenings, especially if aided by a chilling breeze combined with little cloud cover to help the earth retain the warmth of the day's sun. As the month ends, spring-sown cereal crops such as barley, oats and wheat will be harvested. The long-stemmed, drooping ears of the crop first take on a rusty appearance and

soon thereafter ripen, and then, as if the fields were never green, they'll soon be turned back to stubble.

September – October

Fieldfares will by now have begun to arrive, and it can often seem that these members of the thrush family are bobbing around everywhere. Whilst September must rank amongst one of the busiest months of the year for the farmer, for the airgun hunter autumn yields many opportunities, but due to the unpredictability of the weather it can also be very frustrating. The weather can drastically change and ruin any hunting plans you might have. Squalls, rain, freak gales and thunderstorms are always a possibility – certainly, at this time of year they're never far away. So expect the unexpected!

Farmers will be cutting late crops, and ploughing ready to sow others. Most will have harvested all their rape, wheat, barley and other cereal crops, and by the end of the month the new seeds of winter oats, barley and wheat will be back in the fertile ground. Grass fields will have had yet another cut, and probably been tilled for another. These are the ever-continuing cycles of the agricultural calendar, and the airgun hunter needs to learn them so as to be in the right place to ambush and target quarry.



Know the times crops are sown and you'll find the quarry that visits to feed

With all this harvest and sowing activity, it's hardly surprising that September is woodpigeon time as they descend like locusts to feed on freshly-cut and freshly-sown fields alike. This is always a time that the shotgunner looks forward to, and the same should go for the airgun hunter. The woodpigeon is a worthy adversary and, better still, is very tasty. By this time of year I'm nearly fed up with eating rabbits, and a bit more woodie is a very welcome change. Decoys used under flight lines and over the fields the birds are visiting are the way to target these crop-guzzlers. I've learned many of my pigeon shooting tricks from watching experienced shotgunners, and I recommend airgun hunters to do the same. It pays to keep an open mind and remove the blinkers, because the keen pigeon shot will possibly have years of experience, so watch and listen – and when the opportunity arises, join in. Shooting over stubble can bring all manner of sport, with rabbits, crows and woodpigeons being the most common.



As autumn comes down in the woods – it's not only rabbits that forage in the leaf litter

Planting and harvesting are a never-ending cycle for the farmer, and as I'm sure you're now realising, often open up many opportunities for the airgun hunter. These windows of opportunity are at times relatively small ones, as in many places no sooner is the corn cut to stubble than it's ploughed in again and promptly planted with rape or winter barley. Similarly, grass fields once harvested are superb areas to go lamping over, but within weeks the farmer could have tilled them again to get another crop of grass, or the lush new growth won't benefit from much pounding, so there's no more rattling across the bowling green-like surface in your 4 x 4 vehicle. Whilst we need to take advantage of the opportunities, also be mindful of what the farmer has done. He'll not take too kindly to you tramping over freshly-seeded fields, and your muddy boot prints or wheel tracks will always give you away. If you are continuing your shooting around these fields, then 'around' is the key

word. Shoot quarry on the edges of the field, and when moving your position walk around the edges, keeping well off the seed.

If myxomatosis hasn't reared its ugly head, rabbits will be plentiful. However, if they've been shot regularly during the year, by now they'll be very twitchy. Once the crops and grass are cut at least you have a quick chance at getting at them before they dive back into cover. Ambushing them in the early mornings and the short evenings, once you've established the areas they still use, can be productive, but the evenings start to close in very quickly now, with shooting time being reduced steadily with every passing week. At times, you can shoot by moonlight, and if positioned correctly you can shoot woodies that are silhouetted in the treetops. It's not always possible or practicable, but it can be done. Also, at the end of September into October, woodies will be feeding heavily during the day around and actually in the trees that hold acorns, beech mast and rowan berries. Again, this is one of those small windows of opportunity the forward-thinking airgun hunter can take advantage of. Find the right area and wait up in ambush and a good bag can be put together. Shooting will be demanding as the trees will still be in almost full leaf. Alternatively, put a few decks out around the base of these trees and try to entice them down onto the deck.

Many hunters now see autumn as the start of the lamping season, the time to 'turn the lights on' and focus your attention on shooting rabbits at night with the aid of an artificial light source. This can be done either by going out in pairs, with one holding the lamp, while the other shoots or, as I prefer to do, go it alone with a gun-mounted lamp.

Once again, remember that as the farmers are busy, cutting and baling there will be more activity on the country lanes, so be careful on the way to and from your shoot. Remember my earlier warning on weather – note too, that September days can go from one extreme to the other as regards temperature. The afternoons can be gorgeous and even hot, and you may be sweltering under camo when decoying pigeon, yet shivering when dusk comes and you ambush rabbits. It often feels very chilly during night-time lamping sessions.

If grass fields have been left after the first cut they could be cut again as late as the first week of October, before rain becomes more frequent. Winter corn, barley and oats will all be sprouting in the fields – a good

time to watch for flying vermin visiting. The rabbits will be hefty, having now put on body fat in anticipation of the lean winter months ahead. As for weather, rain will sometimes put paid to shooting, and may curtail a lot of hunting plans when we have lengthy periods of wet weather. Trudging across sodden fields isn't ideal or fruitful, but for those who have indoor shooting opportunities for quarry such as rats and feral pigeon – go to it! Alternatively, look around the woods and even small pockets of trees or copses. Now's the time when you'll see squirrels as they go about their daily routine of eating and travelling the routes they use along branches which will by now be starting to lose their foliage. They'll be preoccupied with gathering food, especially beech mast. This is as much a favourite with squirrels as it is with woodpigeons, as it has a high protein and fat content – just what wild animals need to help sustain them in harsh winter conditions. As we saw at the start of the year, you can once again find squirrels amongst the leaf litter frantically gathering up the nuts that fall from split husks to stash away for use at a later date. The same applies to jays and woodpigeons too. The best tactics are to find where your quarry is making regular visits to feed, and then wear full camo, sitting quietly with your back to a tree to hide your silhouette as you silently wait in ambush.

Woodpigeons will still be around, but those that are will be very wary. If they've escaped the shotgun or your airgun they'll be more difficult to decoy than ever before. Try deeks on set-aside fields that look barren, as a well-placed deek pattern might just fool them down to investigate if their brethren have found food.

As the foliage starts slowly to disappear, tall ground cover also dies away. Now you can target rabbits under hedges that are usually impenetrable during the summer months. Night frosts will more likely than not increase by the end of the month, and the trees will definitely be looking increasingly bare.

If September has been particularly mild you can be pretty sure that October will see winter arrive with a vengeance. Rainy conditions will be the norm, with much colder temperatures in the mornings and evenings as well as during the day. Cold, strong winds are usually most prevalent as well, but if you head for sheltered areas such as copses and woods you might be pleasantly surprised at what can be found sheltering there.

Dawn breaks later, so an early morning session can be profitable if you can stand the cold. By the end of the month it's dark soon after teatime, and as the clocks go back, another hour of light is lost in the evening but gained in the morning.

As food becomes harder to find, you'll discover that corvids are easier to entice to baits. Woodpigeons will readily come down to decks placed almost anywhere, especially as they'll be visiting set-aside areas in search of wild flowers, shoots, seeds and clover.

By the end of October we'll have done well not to have a smattering of frost over nearly every field in the country, and that means swapping from lightweight camo wear during the day to insulated jackets, trousers and gloves at night.

November – December

Nowadays, the climate is such that in late autumn and early winter we almost have what can be considered a rainy season. A prolonged period of rainy days will not only affect you while it's raining, but will also quickly turn many fields into muddy bogs. It can take up to a week for the land to dry off afterwards. Indeed, in some years it's only dry when the weather has turned cold enough to harden the soil by freezing the water it holds. When these rains come, which can be earlier or later than November, you can be sure of one thing – that they'll put a huge dampener on your sport, unless you've got access to indoor shooting. These will be lean times for your trigger finger until the rains lessen and the cold, sharp frosty mornings herald a return to outdoor shooting for the hardy hunter who can go back out into the fields and woods in search of sport. Even then, quarry will be hard to find on the ground, and the targets will be mostly corvids, pigeons or squirrels.

Again, baiting is a favourite method for corvids, but now is a good time to establish a baited area for squirrels, although wood-walking among the bare trees can also yield a nice bag of 'tree rats'. Decoys still work for woodpigeons, especially lofted decks near sitty trees; but as much thought as goes into hunting should also go into your own welfare – in other words, keeping warm and dry in the cold weather. If you're cold or wet, not only are you uncomfortable but you won't hunt

efficiently either. There's no shame in admitting that it's too cold and admitting defeat. Far better to go home and come back to hunt another day, than to end up with short- or even long-term illness.



When the colder weather arrives it's time to head back indoors to catch up on the rat and feral shooting

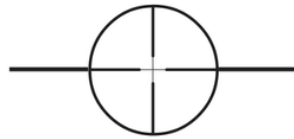
Come December, the woodies will be even easier to target in trees with very sparse foliage, and easy to spot against ivy-covered tree trunks. They can become uncharacteristically quite careless of their own safety as they take the opportunity to gorge once again on ivy berries, so if you find trees they're regularly visiting, being in the right place at the right time can produce results. You only get the opportunity of a few sessions at them in these situations, as they'll soon wise up to the danger and visit other more inaccessible areas to feed.

As the weather closes in, especially when cloud is very low and it's damp and drizzly, squirrels will come down from the trees and be much more active on the woodland floor again, searching for food. The same applies to woodies which can often come down onto glades, clearings and tracks alongside the trees, and not only in the search for food. I side with those who believe they also come down from the upper branches to escape the damp air. If an animal or bird gets wet through, it can have disastrous consequences so it follows that a small animal such as a squirrel or a downy-feathered woodpigeon would be susceptible to saturation and chilling. The weather can be downright miserable and will steadily worsen, and unfortunately, it will tend to remain much the same until late January ... and that's where we came in – at the start of the year.

Now that we've reviewed the seasons, I'm sure you've realised that both the beginning and end of the year can be very dour times, and unproductive to be out on your shoot. But these are opportune times to take advantage of the lull in activity by making a thorough check of all your kit. If your camo clothing's looking worn and battered treat yourself to some new garments. Even though regular routine maintenance of your rifle should be done periodically throughout the year, most shooters opt for a thorough annual check-up. See the chapter on Gun Maintenance for useful advice on keeping your rifle in tip-top condition. If you've spent all year hunting regularly with a PCP air rifle, now's the time to seriously consider having it sent into the manufacturer or a good specialist airgunsmith to have it properly serviced. That way, when it comes back, it'll be working as well as ever to take on the fresh crop of vermin that each new year brings.

There's no way I can be described as a fair-weather hunter, but when winter has gripped the land, with hard frosts the norm, possibilities of snow and the Met Office issuing the familiar stormy wet weather warnings, there's not much to tempt even the hardest or most optimistic out into the fields. When this happens, I do as nature indicates and head indoors with my rifle, and that means catching up on feral pigeon clearance jobs and late-night ratting sessions. Remember, in colder weather these are the times when the rat will seek shelter from the elements and will be getting

well established in places where the farmer doesn't want it. It's time to prove your worth as an airgun hunter and earn your right to shoot on the land when more conducive weather returns. When I do occasionally venture forth at the back end of the year for sport, it's really for the challenge and I recommend that anyone who does the same should keep sessions short.



11

Quarry Files

As mentioned at the very start of this book the airgun hunter has a specified selection of quarry species classed as vermin that are deemed legal to shoot with a 12ft lb air rifle on land where permission has been granted to shoot.

It's the responsibility of every hunter to be able to Identify quickly and easily all quarry species in all conditions and from a variety of angles. In fact, if you take time to study the quarry species as a naturalist studies the behaviour of animals and birds, you'll soon notice your hunting tally grow. You will realise why certain creatures react and behave the way they do pertaining to variation of seasons, weather conditions, even their tolerance to sensing danger.



The back of the head, neck and between the shoulder blades – a crow shows the 'Achilles' heel' kill-zone of all flying felons...

For instance, the first crow you examine close up (which will be the first one you shoot) will remind you of every Hammer horror film you've ever seen. The bird's gargoyle-like features, its 'reptilian-esque' legs and almost demon-like claws all betray the bird's lifestyle and true character. There really is nothing to like about the crow. The only thing to respect is its wariness and intelligence. Whilst a magpie's curiosity can often get the better of him most times a crow will never be so stupid, neither will the adult rook or a large gathering of jackdaws. It really is amazing to watch a flock of jackdaws descend into the treetops as they fly hither and thither on their daily search for food. Hardly have they alighted on the trees than one of their number spots something untoward below and the

flock take noisily to the skies. In fact, further in the chapter on Hunting Techniques you'll soon come to appreciate that you'd rather be in a position worrying if one pair of eyes has spotted you than three or even four. So, imagine how you'd cope worrying on upwards of a hundred!

Even the humble rabbit can be a source of endless fascination. There's always something to be learned from just watching your quarry even without a rifle in your hands. Granted, you'll be amazed at the animal's voracious appetite as it nibbles and gnaws its way over the ground. These fluffy 'Hoovers' seemingly do nothing but eat, but as often as not they'll sit motionless seemingly doing nothing but listening and watching. Then, in the blink of an eye they can either start to groom themselves, resume feeding, start to doze in the sun, huddle down against the rain or just simply leg it to the nearest hedge cover.

Observing animals equally shows their destructive sides, which is the reason they've become classed as vermin. Rabbits chew, eat, nibble and scratch at everything, squirrels similarly so and they climb. Rats are possibly the most abhorrent – the urine and droppings being a particular cause for concern due to the health aspect. This is where birds come into the equation. Droppings from feral pigeon and collared dove spoil grain; woodies eat masses of it and are responsible for other cereal crop damage, as are corvids, particularly crows. Those who suppose crows only scavenge for carrion should forget the first 'C' in the birds' Sunday name, as along with the woodies this is the biggest cause for concern on barley and wheat fields at certain times of the year. Its wings easily beat down crop stems and left unchecked they can strim the fields from outside in, or inside out within a matter of weeks. Even in a few days, a mass of destruction can be caused by a large enough concentration of these pests. So, when you see this destruction, you know the financial burden this puts on to the farming community, and realise that you are doing a service. Although pursuing a very absorbing sport, you do put a lot back to your hosts who allow you to shoot on their land. Before going any further a word on the importance of kill-zones and the knowledge needed of what is, in essence, each and every animal and birds' Achilles heel.

Some of what you have probably read in certain publications is tempered with caution or inflated with flowery prose to make up for a

lack of practical know-how.

It must be remembered that quarry rarely presents itself perfectly side-on or fully facing you. This is sometimes referred to as a quartering target, meaning it will often be at a slight angle. However, in some cases this can work to your advantage as it can help you place the shot past protective feather, fur or bone into a specific kill-zone area. As we come to each individual quarry species you'll clearly have it detailed where and when each kill-zone is a viable and suitable area to aim for.

This will ensure that you hunt as effectively and dispatch your quarry as humanely as possible. This is of the utmost importance as you need to have respect for your quarry until the very end, and although I have a favoured calibre, I'll detail which are suitable to use for each.

Not wanting to get too bogged down with the ultimate result, it is time now to look at each quarry species in turn. In other words, a closer in-depth view into the lives and behavioural patterns of the 11 most wanted.

Rabbit (*Oryctolagus Cuniculus*)

What better animal to start an in-depth look at our main quarry species than with the rabbit? Unquestionably, the rabbit is the mainstay of the airgun hunter, and why not? It's usually found in abundance, it can often be a very challenging adversary and to top it all, it's very tasty.

The rabbit belongs to the family of mammals known as lagomorphs, which actually means 'hare-like'. In actual fact, they belong to the same family as the hare, which is leporidae. Despite what some presume, they're not true rodents, as rodents such as mice and rats have four incisor teeth whilst lagomorphs have six. However, it does share a major similarity with any rodent; when in large numbers it can be a great pest. Everybody knows what a rabbit looks like but commonly, rabbits are covered in a grey-brown colour fur, with an orangey patch on the nape of the neck and an off-white underbelly, and not forgetting the little brown topped, white tail known as the scut – often seen disappearing before the hunter's had chance to take a shot. In some areas, black rabbits aren't uncommon but albinos and piebald are very rare. Rabbit can be distinguished from its close relative, the hare, by the fact that it has smaller ears, shorter hind legs and is much smaller in build.

When to target the animal is very much up to the population on your shooting ground, and the farmer's or landowner's instruction. Usually, you need to make inroads into a large population in early spring, but if not totally overrun, use your discretion and don't overshoot the land. Their numbers will soon dwindle under heavy shooting pressure even though they are prolific breeders giving rise to the familiar phrase, 'breed like rabbits'.



The rabbit is the airgun hunter's major quarry species

Due in part to the fact that a sexually mature female can produce up to 30 offspring in a year, it's no surprise that the rabbit is an animal that farmers and estate managers keep a weather eye upon. Breeding can begin as early as January and continue into early autumn. At the start of the season the female rabbit is continuously fertile; in less than half a day after giving birth, the female is fertile once again. Hence the ability to breed in such large numbers as it's not uncommon for a healthy doe to

produce over six litters a year, each containing on average, half a dozen kittens.

Even in certain urban areas it can cause havoc on cricket pitches or bowling greens – sports centres being a particular favourite as for some strange reason best known to ‘ol bugs’ it just loves to gnaw on the very expensive all-weather Astro Turf. In the countryside, in badly hit areas, cereal farmers have been known to experience a 20% reduction in crop yield. Despite its numbers, the rabbit can at times be perhaps the most infuriating quarry to bag, quickly wising up to the methods you employ.

Habitat

Rabbits can be found almost anywhere. A very adaptable mammal, it's found amongst hedgerows, fields, and scrubland; certainly over most arable land and amongst foliage that provides the requisites for survival, those being cover and a plentiful food supply. Basically, its diet consists of anything that's green and edible ranging from grass to seeds, berries and in deepest winter when other foodstuff is hard to come by, even the bark of bushes and trees. By and large, they prefer soft, sandy soil to build warrens that are usually found on slopes to provide drainage. Contrary to popular belief the rabbit isn't the world's best burrower, and that's the reason loose sandy soil is ideal for them to excavate and build the warren, its communal home. It is an accomplished climber, scrabbling up saplings to get at shoots, quickly clambering over dry stone walls and has even been known to swim short distances when the need arises.

It's an extremely sociable animal, which in many areas generally spends most of the daylight hours underground. Depending on population, it can be seen at any time of day but the early morning and late evening, especially in spring and summer are times to turn your attention to a spot of rabbiting.

Where population is at a reasonable level the rabbit serves as an important part of the open countryside's eco-system, but left to its own devices it can become a disastrous nuisance, particularly to the farming community. This is when it needs to be kept in check and the reason it offers such widespread sport to the shooter of all disciplines.

Location and Behavioural Patterns

Finding rabbits is relatively easy as like most animals they leave clues as to their presence. These are holes or burrows, dense round pellet droppings and runs. Runs are basically flattened pathways rabbits regularly use to move around to and from a feeding area. If left undisturbed rabbits tend to be quite unadventurous travellers preferring to use the same route day in, day out as they venture from their burrows to feed. Feeding areas are easily identified as closely cropped grass or bare patches in newly sown crops at the edges of fields. Also bits of fur on low, barbed wire fencing or at the edges of brambles will indicate areas of rabbit activity.

Rabbits don't like the wind on them, so on blustery days you will normally find them in a sheltered position. Look for them on the leeward side of anything that offers a windbreak; stonewalls, hedgerows and high embankments all fit the bill very nicely indeed.

The rabbit has many natural enemies so has developed a high level of detection systems. These are, in the following order – ears, nose and eyes, the three Ss of sound, smell and sight. Reputedly, a rabbit can smell a predator, especially a human, from up to a hundred yards away and its hearing is even more acute. Little wonder it can make such challenging quarry, especially when you consider, due to the eyes being positioned at the side and towards the top of the head, that a rabbit can virtually see all the way around and above its position. The animal is usually in a constant state of alertness, so the only time you can stalk up on them successfully is by approaching downwind, keeping low and hoping the animal is either dozing in the sun or preoccupied with feeding. Interestingly, it's now known that a rabbit's status of alertness changes depending on its location. If close to cover you'd think it'd be more relaxed, but not so, as here it realises that a predator could spring from the same cover it can take refuge in. Also, when far away from its burrow it'll also be very alert as it knows it's got a longer distance to travel to safety. The animal will only relax in areas it has found to be relatively undisturbed and when in such a position it feels comfortable. If you regularly observe rabbits you'll soon recognise that their body language is a giveaway if they are anxious or untroubled. This is when being out and watching animal activity can reap dividends for you as a hunter. Just watching lets you see

the animal in its natural state going about its business, and if you remain as unobtrusive as possible you'll be surprised at how much you can learn and how close they'll come. The body language of a rabbit is also the biggest giveaway to the way it reacts to its surroundings. Once the ears droop onto the back of the head, it has relaxed one sense, the next are the eyes which won't actually close but like a dozing human it will half close them and then it will drop its head onto its chest or even lie flat out on the ground. You often see this behaviour during hot weather and through the longer summer evenings, but it only takes the slightest hint of danger for the situation to change. Whether that is because it has detected a suspicious movement, foreign smell or sound, it'll prick up its ears, and get up onto its hind legs in readiness to bolt for cover. Learning the body language of a rabbit is very important as it can often save you a lot of wasted effort in maybe stalking a rabbit that just isn't a suitable candidate for your attentions.

Methods to Use

The rabbit is a candidate for virtually every hunting technique. You can come across one while opportunist shooting or wood-walking. You'll most certainly need to stalk closer to take the shot and ambushing them in appropriate areas can be a very productive method. They can be targeted at night with the lamp or dedicated night vision rifle scope. If you are allowed and can drive around a particular area of the shoot you can shoot them from the cab or passenger seat of a 4 x 4, or going solo on an ATV such as a quad bike.

In most cases stalking can be productive and is a skill that needs to be properly learned. There are times when it's unstalkable and this is when you should try lying up in ambush, but one thing that we have in our favour is its habit of freezing when it first senses danger. This can either be its saviour from predators, or if we spot it, its downfall. To have any measure of success with hunting rabbits it is essential to know where they are likely to be at certain times of the day and/or night.

Ambushing is a much more relaxed way of shooting rabbits and can be very productive as long as you've chosen your shooting position with care. Always reconnoitre the area you intend to shoot over and establish

where the rabbits are found and at what time of day. Get into position before the rabbits usually appear and a good bag can be on the cards.

As a hunter, I feel there's nothing like the first adrenalin rush when after watching a hedge line for a lengthy period, you see a flicker of movement. It could be a twitch of an ear or the tentative first sight of the animal's twitching nose, slightly poking out from the undergrowth to sniff for danger. Alternatively, it can just suddenly lollop out into plain view to sit and survey the scene or even start to spruce itself up. Sometimes, however, that flicker of movement that sets your pulse racing can just as likely be a robin or wren searching out insects. On more than one occasion these busy birds have charged me up to have my head on the cheekpiece getting ready to sight in on what I have thought to be the first potential bunny of the day.

Lamping can also produce when the rabbits are active at night. Alternatively, if the rabbits are wary of the lamp (lamp-shy) more and more hunters are realising the benefits of using dedicated night vision equipment such as NV scopes to target quarry in total darkness. Suffice to say, in the relevant chapters to come, all these hunting techniques are outlined fully to help you deal with this most rewarding of quarry species, and, at some time or another, the airgun hunter will thank it for the sport it offers.

Calibres and Kill-Zones

As I used the rabbit as an example of where pinpoint accuracy is of paramount importance in placing a pellet into a kill-zone, way back in the chapter on pellets and calibres, it's now the place to explain the reason for that and to explain kill-zones in general.

While choice of calibre is a hotly debated subject amongst airgun hunters, nobody can disagree, that if you hit any animal correctly in the kill-zone with any calibre 'slug', it'll be dutifully dispatched. Therefore, all calibres will be more than a match for the rabbit as long as your accuracy puts the lead into the areas detailed here. Incidentally, it's very fitting that we begin with the rabbit in Quarry Files pertaining to kill-zones, as this animal's vulnerable areas are surely the most misunderstood.

With a legal limit 12ft lb air rifle, more often than not, when targeting the rabbit, this is where it's advisable to adopt an all-or-nothing attitude in your hunting and take only head shots. A wounded rabbit can quite easily get to cover and perish in its warren or similar area of safety. This is an unacceptable situation that you must strive to prevent from happening at all costs.

To say glibly, 'head shot' isn't explanation enough, as a more detailed look at rabbit anatomy is needed to describe exactly where the pellet needs to go. Although the head of an adult rabbit looks quite large, the kill-zone of the brain is approximately only the size of a walnut. To hit this area with deadly effect, imagine a line from eye to the base of the rabbit's ear. The area to aim for is just off centre behind the eye, on that line towards the ear. This is why I mentioned the need for precision with the smaller .177 calibre pellet. Hit dead-centre with .22 or even slightly further forward or back and it's also fatal. Move further to the front with .177 and you could actually go into the nasal passage of the animal. Now, I'm not purposely trying to be controversial, and I know this has never been written about before but I feel a book intended to be highly comprehensive should address these matters. I've shot rabbits that have obviously recovered from these wounds but is it fair that they've been injured in this way? No, and I'm sure the majority of responsible hunters agree. So that's the 'side-on' head shot fully explained. Now, if the rabbit presents itself 'head-on' facing you from the front, we can take a line from just above the eyes to just below the neckline and again achieve a clean kill with any calibre from a 12ft lbs legal limit air rifle. Sometimes, especially at night while lamping, the rabbit can infuriatingly turn its back on you, adopting a position where it can move directly away from you, and usually this is when they're near cover so they face back into it. If they do, put one straight into the back of the 'napper' or base of the neck before it does a runner.

Now to the thorny subject of the body shot, and it is one that some shooters take with a 12ft lb rifle and feel is a valid kill-zone. That's fine if it works for them, but personally, it's a shot I'd only take using a high-power .22 calibre air rifle of say 22+ft lbs.

If the rabbit is facing you and if it is standing on its hind legs you can shoot directly into the centre of the upper chest to place the pellet

between the front forelegs. From the side, it isn't as easy. Here you follow the line of the foreleg to where it meets the animal's body. Then place the crosshairs so the shot will impact the rabbit approximately a third of the way back on the body. This will place a shot straight into the boiler room – the heart and lung shot. These shots are acceptable due to the fact of the rabbit's rib cage not being overly strong at this point, coupled with the lower amount of body tissue surrounding these organs. But in autumn when the rabbit has usually piled on the pounds with extra body fat, you do have more to contend with. This is where I'd not take this shot with anything but a hi-power air rifle and then only when necessary. There is a section devoted to hi-power (FAC) rifles much later in the book, also as you work through Quarry Files, you'll notice that a hi-power air rifle gives you more options on pellet placement for a variety of species. But I digress. When a rabbit presents itself full-on, sitting up and looking in your direction, a hi-power, FAC rifle really does give you the edge, allowing a very specific shot. Imagine a line drawn across the head just above its eyes and one drawn down the centre of the animal's body – making a cross, the centre of which being just above the rabbit's eyes on its forehead. From here (the brain) to approximately 3 inches on the vertical line down its chest to the heart and lungs is all exposed kill-zone. If your rangefinding isn't the best, that's a fair drop of allowance and certainly a reason some choose to use FAC air rifles for rabbits, but as this is for the majority who hunt with 'off-ticket' rifles, the head shot is still the optimum kill-zone.

Incidentally, for those who really want to understand the reason these body-shot areas are effective; when you shoot a rabbit, dissect it by slitting straight up the front and middle with a sharp knife or game shears. Cut up the sternum to expose the chest under the rib cage and look to see exactly where the heart and lungs are. This also applies to other species; dissect them and you'll have a better understanding of the quarry's anatomy, giving you better insight into these vulnerable areas known as kill-zones.

Myxomatosis

You can't talk about the humble rabbit without having to mention the horrendous plague that all but annihilated them in this country in the

1950s, that being the insect-carried virus, myxomatosis.

Myxomatosis or 'myxi' was used to clear Australia of their plague of rabbits, and it was introduced here in the early 50s, some pin it down to 1953. It was brought to Europe by a French physician called Dr Delille to control the rabbits on his country estate near Paris. Many presume that it was brought and introduced here intentionally, and granted, it has been put down in some areas; sometimes legally, others not so. When farmers realised how effective it was in eradicating pesky scut tails, they moved infected rabbits to other areas where the rabbit flea just went about its business spreading the disease, but it's not just the rabbit flea that carries the virus, most other blood-sucking insects can also to some extent spread the plague. It can take up to two weeks after being bitten for the rabbit to contract the disease, which manifests itself on your shoot when you see misty and swollen-eyed rabbits. The eyes stream with mucus that they continuously rub and scratch, often until they bleed. The rabbits quickly weaken and eventually die of starvation or lung infection. Rabbits carrying the disease can look healthy up to a few days before death when they show characteristic signs of lethargy, blindness, stumbling and weak movement. Unfortunately, the disease still rears its ugly head today but tends to crop up in localised pockets and then will not totally wipe out the area because more rabbits survive as generations have developed a tolerance. The fleas still carrying the disease can overwinter with the rabbits in burrows ready to infect the next generation. Pet rabbits can now be vaccinated against it and as it's highly contagious they should, but for the wild coney, shooting a rabbit in this state is an act of mercy as if not picked off by natural predators, they otherwise meet a lingering and unpleasant end.

Brown Rat (*Rattus Norvegicus*)

The woodpigeon, magpie and carrion crow surely top the list of farmers' most unwanted feathered pests, but undeniably the brown (or common) rat is surely the most detested of all terra-firma-based vermin. Not only does it eat anything, but it also carries all sorts of infectious diseases, including the potentially fatal Weil's disease. It's caused by the leptospira virus hence its other name, leptospirosis. It is carried in the rat's urine, so

humans only have to come into contact with something it has soiled and they can become infected. For this reason, never touch any that you've dispatched. Handle them only with protective gloves or tongs. Dispose of them properly, preferably by burning, or bury them with a shovelful of quicklime.

Despite, or because of, its deplorable ways, you could say that along with the feral pigeon, we have it to thank for the public accepting the valid use of airguns as a tool for controlling vermin numbers. Virtually all airgun hunters have a tale to tell and I'm sure you've heard the 'rats as big as cats' stories. Well that's a bit of an exaggeration, but adults can weigh up to 2lbs and be up to two feet in length, from the tip of its whiskery nose to the end of its scaly tail. Its ability to survive and thrive is staggering.



Man's mortal enemy – the brown rat

Habitat

Wherever there is human habitation you will find the rat, living in unhealthy (for us) harmony with its unwitting hosts. During the summer

months they, like all mammals are spread far and wide across the countryside. When the colder weather comes they head for barns, grain silos and outhouses, in search of warmth, shelter and of course, food. Although they are found in sewers or beside drainage ditches and canals, they aren't the greatest lovers of water – preferring warm dry accommodation. Farms make ideal rodent environments; spilt grain, chicken and pig feed all make a ready food supply for the rat, whilst outbuildings, barns and chicken coops make ideal homes. In fact, your average farm could be considered a five star hotel for a rat. There's little more to say on the subject other than they can live above or below ground; the holes and runs they use can at times seem too small for them to pass through or use, and they are everywhere they are not evicted from.

Consider this: As they have no breeding season or seeming limitations to breed here are some frightening facts: The brown rat becomes sexually mature in little under three months and most females produce at least five or six litters each year, each containing up to ten young. This means that in an ideal habitat, a pair of sexually mature rats can easily produce over 60 offspring, as a pregnancy can last as little as 24 days. Taking into account the relatively short time it takes them to reach sexual maturity, this knock-on effect can mean a pair of rats, including their offspring in one year can theoretically be responsible for creating well over a thousand rats - a staggering thought! There's also the widely held belief that rats can sense disease in a potential mate so healthy rats don't mate with poisoned rats. A reason they say, that modern poisons are becoming less and less effective.

Incidentally its close relative, the black rat (*Rattus rattus*) responsible for the Black Death, is now a protected species (cough!) and thankfully only found on the Island of Lundy.

Location and Behavioural Patterns

On the farm, the first sign of rats is usually amongst the pigpens, cattle feed troughs and hen runs. Later, or simultaneously, they'll appear in and around grain silos and hay bales. You'll probably catch sight of one out of the corner of your eye as it scurries along the base of a wall, across a beam or girder making its way to food, or back to an entrance to a

communal home. Hundreds of these rodents can occupy an absolute labyrinth of tunnels and ‘scrapes’.

Rats just love dark, gloomy places – all the better if they contain straw such as the aforementioned hay bales stacked in storage over winter. Any of the animal pens or outbuildings are worth a try for locating them, but as extreme caution is needed if shooting near livestock, first check if you can target them elsewhere.

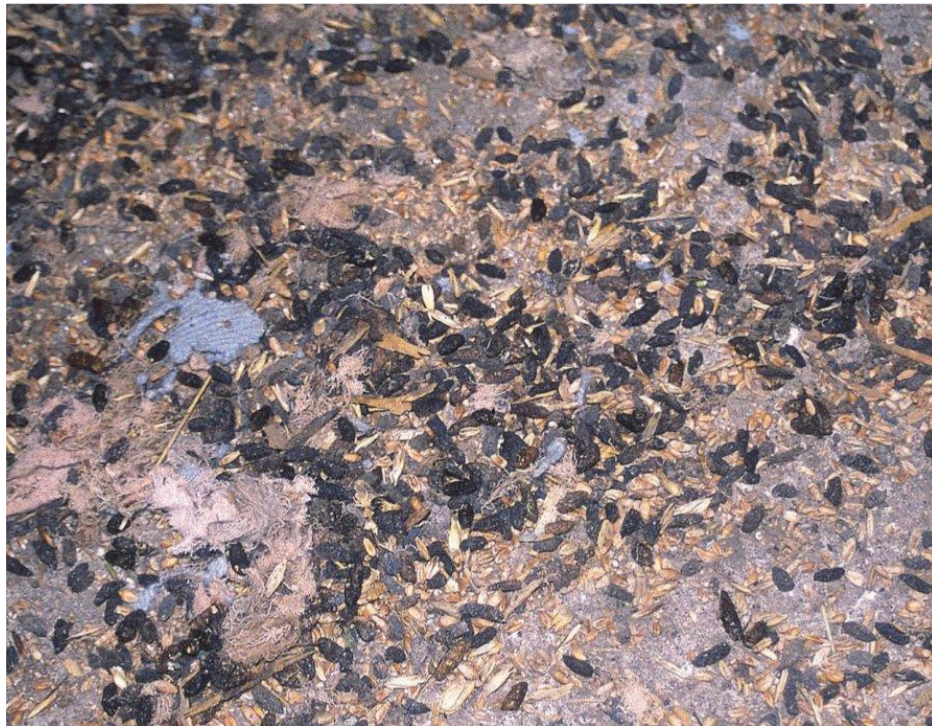


The rat can be incredibly wary but at times unashamedly bold

Within the confines of the farm buildings and outhouses, rat holes can often appear as if overnight, when the rat is usually finding its way in from the fields. In fact, I’ll take this opportunity to dispel the popular misconception that the rat lives indoors all year around. You’ll more often than not find a few in and around the farm all year long, but come late spring and the onset of warmer weather it returns to the fields. Often then only returning to farm buildings because of the food it can find. Once the food source is taken away, in the case of grain, used and sold,

then so too will the rat, like Elvis, ‘leave the building’ until the colder weather once again returns.

The rat is an unwelcome guest around the farm due to two major problems it will cause. One is damage and the other is the foodstuffs it will spoil. Granted, it will eat a lot of grain but the major problem is the droppings left on top and the faeces that permeate down into the valuable stored cereal. The other damage is the rodent’s penchant for gnawing into anything that it comes across – electrical cable, sacks, wood and particularly its burrowing into bales of hay, not only to rip out material to take away for nest building, but also to find a cosy spot to raise yet another brood.



Rat droppings are unmistakable and betray areas of heavy infestation

Incidentally, be warned: indoor close range shooting isn’t as easy as it first seems. No sooner will you see one, than it will disappear into the little hidey-holes they use for safety. Despite its abhorrent nature, the brown rat is a clever, intelligent and at times infuriatingly cautious critter. It’s also a socially structured animal that can pass on information quickly to others concerning areas that hold food, or once you’ve shot a few times, the area that carries danger.

Methods to Use

By and large the brown rat is a nocturnal creature, spreading its nastiness under the cover of darkness. There are two ways to bag them, both involving shooting at night using some form of artificial light source. However, now with the availability of hi-tech, night vision equipment the true specialist has even more options.

First the tried and trusted traditional methods: the most widely known, being baiting out. Before going any further it must be said that although this method works, and works well to some extent, it isn't half as effective as targeting them on their established runs and self-appointed feeding areas, which will be dealt with in the chapter on Shooting At Night.

As the name implies, 'baiting out' is a method whereby the shooter puts out a suitable bait into an area with the objective of establishing a feeding area the rats feel safe visiting. Similar in reasoning is a dead rabbit left out to bring in carrion feeders.

The baiting process is quite straightforward. Food should be left out regularly for up to a week before any shooting is done, and anything will suffice, from bread to rotten fruit. Most who've done this type of shooting prefer certain foodstuffs, but the experienced agree that putting out bait that can't be dragged away and eaten out of sight is far better. Some favour bread or a chicken carcass in a net bag suspended a few inches off the floor. The rat has to work to get at the food above its head and to get into the bag. Similarly, a big tin of pet food with holes punched in the side so the rat has to struggle to get its nose in is another good bait, but if there's one treat they can't resist it's grated chocolate and peanut butter. Peanut butter is ideal as it sticks to the area you place it and the rats have to stick around to nibble and lick it up. As an added incentive the grated chocolate is like icing sprinkled onto the cake, and the combined aromas waft around to be easily picked up by the whiskery rodent's nostrils. There are other baits used, including grated cheese or groundbait used by anglers; this small crumb bait keeps the rat nibbling away on the spot.

The kit, and employment of the method, is simple. You need to choose a hidden position within range with a shooting angle that gives you a sturdy backstop behind the target. If needed, put a big piece of heavy

wood covered with carpet behind the bait to absorb the impact of pellets. For many situations such as this, you don't need a gun lamp as you can shoot by the illumination of the low-power light near the bait. In these cases, I'll opt to use a springer with open sights or preferably a multi-shot PCP with red-dot for the fact that they allow you to get a quick fix on the target. However, I'll more often than not use a scope with a gun lamp onboard so as to target those detected in the areas out and away from the baited area.

As well as preparing the area with bait, it should initially be illuminated with a low light on a regular basis so the rats become accustomed to it. Most barns have a power source for illumination so all you need to do is put a low wattage bulb of no more than 40W in a suitable holder such as an old bedside lamp or car inspection lamp. I set the light to the left of my intended shooting position and no more than 12 yards from the baited area. The light source is then blocked out from my direct view so I'm never able to look directly at it, thus saving my 'night vision'. Baiting-out tactics can bring quick results when first employed but soon lose effectiveness after a few shooting sessions.

This is when you need to search the rats out in the runs they're using to and from the natural food they've discovered. In fact, it's often the case that where rats have established food and a way to and from shelter they'll not respond well to baiting-out tactics anyway. In this situation, you'll need some extra and specialised accessories other than rifle and pellets. These other methods will be detailed in full in the relevant sections.

Calibres and Kill-Zones

Though I'm a great fan of .177 calibre, I must admit it wiser to opt for the .22 calibre slug when targeting rats, especially if taking them 'on the hoof' so to speak. Usually, a pellet into the front third of the rodent's body will dispatch it but if it's moving, that's a very small target. The .22 allows you more leeway from the exact point of kill whereas a .177 pellet needs to go straight into the brain or heart. If the rats are hanging around, then I would use .177 calibre but take full-on head shots and preferably the best shot by far is directly into its whiskery snout, from the front as it peers down or up at you. However, if the range is within 25yds I choose

to use .22. Some even advocate .25 but though you're getting a pellet giving extra weight and mass, I don't feel the pros outweigh the cons. So that brings us back to the two most popular calibres and equally as important where to place the lead. Obviously, head shots are preferable and with the .177 calibre essential. However, with larger calibres and at closer range, If you hit the rat in the front third of the body it isn't going to go far!

Ratting can be very challenging and yet satisfying as every time a scaly tail snuffs it, you've done a public service – no arguing with that.

Know your Voles

When hunting near rivers, streams, lakes, canals or any body of fresh water, make sure that you don't confuse the brown rat with the little bank vole or larger water vole. Both are becoming quite scarce in some areas, they do no harm to the environment and are largely protected.

It's easy to distinguish between rats and these friendlies. A full-grown bank vole is only about 8-10cm in length, including its furry tail – more the size of a mouse than a rat. The water vole is a lot bigger, with head and body about 20cm in length and a hairy, ringed tail of about 10cm. Its head is round and blunt in appearance (vaguely similar to a guinea pig), with tiny ears. In contrast, an average-sized rat has a head and body length of 23-28cm, a pointed whiskery nose, prominent ears and long, scaly tail.

Grey Squirrel (*Sciurus Carolinensis*)

A prolific inhabitant of our forests and woodlands, the grey squirrel has been nothing but trouble to our forestry industry since its introduction to this country from its native North America in 1876. It's a busy little rodent that will gnaw and nibble at anything, and it has a penchant for biting the growing shoots from young saplings, resulting in a stunted, unsightly tree. It also has another particular annoying habit of stripping the bark, even though it doesn't eat it.



The grey squirrel is little more than a tree-rat

Most of these random acts of destruction are due to the fact that like other rodents it needs to wear down the incisors due to the continual growth of these effective gnashers. It eventually was recognised as such a huge problem that in the 1960s a bounty was put on its head as the Government actually paid people to shoot them. Incidentally, it's approximated there are now over two million greys in the UK at any one time, despite the pest being well and truly classed as vermin.

Easily distinguished from our native and protected red squirrel, it has a uniform grey fur coat, with a dirty-white underbelly extending up to the throat and face, and it has a characteristically long, bushy, silvery grey tail. Its small almost indifferent ears are a big contrast to the red's ear tufts which are, in relation to the ears of the animal, large and very distinctive. The grey is also much larger, stockier and even in silhouette has an unmistakable outline. Come spring before new foliage fully takes over the trees, the squirrels can feed on buds or gnaw to get at sap just under the bark. This is where, when and why they cause such a problem to plantation owners, but it's not only due to the damage they inflict on

trees, because come the breeding season for birds, they're notorious egg thieves and fledgling killers. Often we punish and blame corvids such as magpies and crows but just as likely the culprit is the squirrel.

They're also a nuisance on kept estates where they will steal the grain spilled out for game birds, and in harsh winters will even chew holes at the top of the feed hoppers to get inside. As you can see, definitely not a fussy eater and couple this with the fact that it serves no constructive natural purpose at all to the woodland eco-system, and you have on your hands a right royal pest!

Habitat

Where there are trees, there will usually be grey squirrels – especially in deciduous woodlands. An extremely resourceful creature, it is equally at home in a town park or urban garden where it delights and thrives in raiding bird tables for nuts, fruit and seeds. A popular misconception since its arrival on these shores is that this larger alien species of squirrel has ousted the more timid native red squirrel. This is only partly true. The red was actually in decline before the introduction of the grey. Also, it's now coming under threat from the parapox virus and to top it all, our native species prefers coniferous woodland – a habitat in somewhat of a decline in most lowland counties. Another misconception is that squirrels hibernate during the winter months. Again, this is definitely not the case and one of the reasons it provides excellent sport for the airgun hunter during the colder months is that it can be seen out foraging even in the snows of deepest winter. However, it does prefer the warmth of the drey during harsh wet weather but if hunger dictates it must feed, it will be out rummaging around in the leaf litter. The drey is usually quite a modest-sized, ball-shaped construction of twigs and leaves, usually built in the cleft of a tree. In the safety of its lair, two litters of one to seven young are reared between January and June.

Location and Behavioural Patterns

Signs of squirrel activity in the woods on your shoot will be easy to spot. They usually have a particular branch or stump from which they keep an eye on the trees around them, and this can often also be a favourite feeding spot. Around the bottom of these areas you will find pieces of

stripped bark, broken husks, chestnut shells, split and gnawed fir cones etc. The drey is also easy to identify and locate once the trees have lost some of their foliage. This can look like a small nest but will often only be a scruffy collection of twigs, dead leaves and even pieces of bark jammed into the fork of a tree. Usually, they're not very high up, maybe midway up the tree as the squirrel isn't keen on repairing wind-damaged dreys perched in the upper branches. Occasionally, you'll find established dreys with nut stores close by, usually higher up and smaller in size than the main drey, like the animal's separate outhouse-cum-larder. Sometimes the squirrel just takes up residence in an unoccupied crow or magpie nest adding fresh building material when needed. In fact, find a drey in spring that has had some recently added fresh vegetation with green leaves showing in the construction, and you know it's being used.

Squirrels, like rats, have no difficulty in finding food. They have an acute sense of smell – one of the reasons they easily find hoppers full of grain and any spillings or leftovers that are freely on offer. Then again, the squirrel is so adaptable and intelligent it can soon work out a way into most containers of food storage – usually by chewing its way in. As with any form of hunting, location and patience are the key to success. A quick walk around a small copse or wood will soon have you find the tell-tale signs of squirrel habitation. If near coniferous trees, you'll find the fir cones neatly stripped, gnawed down and discarded like an eaten apple core. Small scratchings at the foot of trees in any wood betrays their presence especially if accompanied by signs of bark being stripped. These signs aren't always aloft; as squirrels often have a favoured fallen log or branch they'll gnaw away at like hungry little beavers.

It's the feed hoppers themselves that come regularly under attack and regular replacing, even the toughened plastic types, is a troublesome chore for keepers, not forgetting an extra expense. Find these areas and you'll undoubtedly have some squirrels. Look aloft as you walk through the trees and you'll soon find its bulky home.

But it's not only outdoors that squirrels can be found as they can cause a right problem when they've taken up residence in the roof space of country houses, or even in urban areas. They can ruin loft insulation by scratching, and gnaw through wiring; all potential fire hazards.

Methods to Use

The airgun hunter can target them in the trees, and where possible, bait them down to a natural or artificially created feeding station. There is a technique known as drey-knocking. This is more often used by shooters working in pairs whereby they knock the drey with lofting poles to send the squirrel out to meet an end with the shotgun. Though some airgun hunters try this method, by and large I'd leave this for the shotgunner as we want them to be still, rather than running for cover. However, the method is detailed in *Hunting Techniques*, for reasons of thoroughness.

Wood-walking is just as the name implies and can be allied with opportunist shooting as the technique involves you walking slowly through woodland scanning the trees for signs of activity. These methods are outlined in the appropriate chapters. Needless to say, the best time to hunt squirrels is from autumn through to winter.

When beech mast is ripening early on in the autumn, squirrels will stay in the trees, but once the split-open husks fall, they'll follow the food source to the woodland floor. It's plentiful food and the trees are bare so take the opportunity to reap results until the buds start to green the trees up come the spring, and squirrel shooting becomes nigh on impossible due to the foliage.

However, it's at this time of year you can sit up near an area where you've found they're feeding and wait in ambush. Sitting quietly within range in full camo is the way to succeed. If it is a feed hopper they're visiting, then they'll come down to feed near it, but it often pays to give them an extra incentive to bring them to the shooting position.

Spend time in a place frequented by squirrels and you'll soon notice they have favourite walkways to and from areas. They'll come down or go up the same trees and use the same branches to keep moving around while still keeping off the deck.

Whether it follows its own scent or just knows its way around a familiar area is debatable but they certainly do show a preference for travelling along the same routes. They also definitely have favourite positions to sit and eat foodstuffs. These can be in the fork or cleft of a tree, anywhere that gives them an easy place to sit on their haunches as their front paws are busy holding and manipulating the food for getting

their greedy chops around. Alternatively, in spring they'll go to the very tops of trees to get at the most succulent buds.

I don't think there's any animal or bird classed as vermin with the exception of the rabbit, that can't be tempted by a free meal. An animal's inquisitive nature can often be its downfall which is one of the reasons they're sometimes easily trapped, but squirrels are very clever and soon learn to avoid the cage traps that are regularly set in any one particular area for them.

Usual baits for traps include corn, any cereal grain, ground or whole peanuts and would you believe, some swear by chocolate. Use ground-up nuts, assorted nuts and raisins or cheap brand breakfast muesli and put it out at the base of a feed hopper or favoured tree they use for descending from the canopy. Then carefully select a spot, under another tree within range and just sit and wait for events to unfold.

Make yourself comfortable and prepare for a long wait. I'll use the same tactics I employ when sitting up near a sitty tree waiting for woodies; that's full camo, including facemask and gloves but ready to take shots along the horizontal as soon as the squirrels come to the feeding area. When shooting in this way, I prefer to use a low-light scope, with the magnification wound down to its lowest setting so as to take full advantage of a big objective lens's light-gathering capabilities. Even on the brightest days it can get quite gloomy under a tangled canopy of even quite bare branches. When the squirrel does make an appearance, and don't worry, it will eventually, aim carefully depending on how it presents to your shooting position and you'll have ambushed the first of hopefully many bushy tails.

Incidentally, in my experience it doesn't pay to leave shot squirrels near a baited area so although you need to break cover, look to check that there aren't other potential targets around before removing it.

Like any animal, squirrels soon sense danger and wise up to the fact that hanging around on the deck isn't a good idea once a few have been shot. Thankfully for the shooter, they're predictable little varmints and if they don't sit and hold on the ground, they might nick a piece of the tasty treats left out and high-tail it to sit high up on a branch nibbling the prize. Once up aloft, in familiar territory, a squirrel's confidence rises dramatically, even to the point of arrogance.

Calibres and Kill-Zones

For squirrel shooting, any calibre be it .177, .22 or the less popular .20 will suffice as long as your accuracy is up to the mark. Targeting these rodents isn't easy because the kill-zones aren't that large and if it's aloft the shot could be a tricky one.

If the squirrel is sitting side-on, the prime spot to aim for is the head down to the shoulder but if it presents full-on the little white chubby underbelly is a very exposed tempter. The squirrel is a deceptively tough critter and even here the pellet can't be allowed to drop below the animal's front paws or else you'll miss a vital organ. If facing away, flat to a tree trunk, drill one right into the back of the head or neck area and it won't be clinging on for long.

The Collared Dove (*Streptopelia Decaecto*)

The collared dove is a relatively recent visitor to our shores, but has now become firmly established as a most common and abundant breeding bird. It's hard to believe that it was once strictly a bird of the Balkans (the hilly region encompassing Bulgaria, Greece etc.) and lowlands of mainland Europe. The first reported nesting pair in the UK was in Norfolk in 1955 and its colonisation of this country since that time is staggering. There can't be a farm, park, garden or urban estate roof that hasn't been graced with its deceptively pretty presence at some time or another. The main reason for the amazing population expansion is largely due to its ability to breed all year round if the food supply is plentiful. Not to be confused with the protected and slightly smaller turtle dove, the collared dove is distinguished by the black and white edged half collar around the back of its neck – hence the name. This collar, which sets off the creamy grey brown to buff neck and body plumage make it a very attractive member of the dove family. Unfortunately, appearances can be deceptive, as left to its own devices this bird will eat a store of winter grain.

Habitat

Whatever the species, bird population usually declines due to the fact they either can't adapt or they are too shy to live in close proximity to

humans. The collared dove, however, is perfectly designed to live near urbanised areas and feeds on anything from grain, corn or poultry feed to household scraps and bird table offerings. In fact it's now officially classed as a bird of town parks and gardens. In areas where dairy farming is the norm, the collared dove easily adapts to live further out into the fields on anything from weed-seeds and young shoots to elderberries.



The collared dove is a deceptively pretty pest

Why are collared doves so unpopular then? Well, they can actually steal the feed from free-range hens, where they are often seen feeding right amongst the domestic fowl. Even though it's a prolific breeder, its nest building skills leave a lot to be desired; the usual nest structure being little more than a flimsy platform of woven twigs high in a tree, on a ledge, on a fluorescent tube light fitting or in the rafters of the barns and outbuildings. An insight into its self-procreating potential from some recognised ornithologists states that in the case of collared doves living in a high yield food enriched habitat, female birds can be in a state of near permanent fertilisation. Somebody really should tell them about birth control.



Hardly sport – but the collared dove is now so common partly because it can breed all year round

Location and Behavioural Patterns

The collared dove is a very easy bird to find, due to the fact that it never strays far from its food supply. So it follows that its need to be close to a regular source of suitable foodstuffs is the key to this pretty pest's location. This is why they, like feral pigeon and in some instances, woodpigeon, have taken to frequenting town parks and gardens. For obvious reasons the law prevents you from shooting them in these public places, so the main place for the airgun hunter to target them is around the farmyard and surrounding buildings. Short observation reces will soon show where it prefers to feed. The bird absolutely detests bad weather, and will always be found sheltering from the wind and rain. The unmistakable relatively high-pitched double 'coo', so common to doves of all varieties, or the repeated 'cu-coo-cu' call will usually betray their presence. The collared's call is also a quite lengthy repetition of this set pattern. It has another quite raucous 'crying' call which is used when flying off or landing – it's used as both an alarm signal and telling all and sundry it's arrived on the scene. Like many other feathered felons, it will

also have favourite sitting trees, ledges or beams where it will sit and digest large meals. In a sitting, this relatively small dove can get through an enormous amount of seed, corn or grain. In fact, when they are in this digesting mode after a good feed they can be quite easy to sneak up on.

Methods to Use

Firstly, it must be said that although the collared dove is a pest in certain areas, similarly when targeting other quarry species use your discretion as to what exactly constitutes a threat to the farmer's livelihood or health. I only consider shooting collared doves when they are present in seriously large numbers and known to be spoiling or taking an unacceptable amount of grain. I say this because shooting collared doves is relatively simple and in my opinion an act of sheer pest control, not sport. Their trust of humans is their downfall and they will hang around much longer than any other quarry species, apart from established feral pigeon colonies.

If you are asked into an area to shoot them, then the three main methods of dealing with or dare I say 'hunting' this prolific dove are roost shooting, stalking (around the farm buildings) and baiting-down with grain. As soon as the dawn starts to break they'll probably already be out and about feeding. Although the bird tolerates human presence, it still has keen eyesight and if it does sense danger from you it will flutter up to move on to another part of the farm to feed. This can be infuriating but it still won't be as shy or wary as any of the other legitimate quarry species. Roost shooting isn't anywhere near as productive as the other two methods, as collared doves tend to roost in very small numbers, usually twos or threes. However, this is also the most unsporting, and again a method to use if shooting for sheer pest control. In fact, when the birds have paired off, especially when they have eggs or young they often roost together on the nest. In the day, the female sits on the eggs, the male hanging around outside the barn in a tree or on the building roof. At night he comes in to snuggle up against the female but the birds often sit facing in opposite directions. The sitting arrangement is presumed so the birds can defend the nest from rats that will also be up there in the rafters and roof space. The collared dove is very brave for its size and they'll fly at magpies and even rats keeping them away from eggs and chicks.

Unfortunately, in the kafuffle they often knock their own eggs or even fledglings out of the nest so they achieve little. However, such is the prolific breeding pattern they soon have another clutch of eggs, usually two laid shortly after they lose any. They're also, once paired off, very affectionate to each other, preening one another and generally sitting and staying close together. But I digress and back to shooting methods.

Baiting-down is the most efficient method of making inroads into the bird's population where it has become troublesome. Once you have established an area that the birds frequent regularly, it's just a matter of putting out feed for them and leaving them undisturbed for a few days. This form of ambushing obviously necessitates the use of shooting from cover. This can range from a perimeter wall, from inside an outbuilding or from behind any type of static farm machinery. I stress the term 'static' as it's no use if the tractor gets driven away on the morning you plan to shoot. Large bags can be built up shooting this way as the collared dove, even when scared off, will usually return quite quickly. Whether this is pure greed, or they are just plain dumb is anybody's guess. I reckon it's a combination of both with a liberal sprinkling of plain old gluttony! However, a trait they do display which is their downfall is they tend to stay together in pairs and even when you shoot one, often the other won't fly far sometimes only fluttering up to immediately settle back down strutting around near the fallen comrade. These are the times a double-shot or multi-shot rifle are a godsend as a quick back-up shot will usually end in you bagging a brace a time. As I said, shooting collareds is hardly sport.

Once you've shot a few birds, these can be used as decoys, using chin sticks set up as you would using shot woodpigeon as natural deeks. Try to sit the birds in a head down, feeding position. Unlike decoying woodies, the pattern you lay collareds out in isn't critically important. One tip though is to arrange the birds as if feeding in a loose circle, heads facing inwards towards each other. This seems to be the dove's natural feeding pattern when congregated in a small group.

Stalking is the most demanding method for dealing with the birds. Even though the doves might at times seem to be untroubled by the human presence, a person intentionally sneaking up on them is something else altogether. If the weather has been inclement for a few days then this

could well work in your favour, as the doves will shelter amongst the buildings and surrounding trees. When moving around the farm buildings themselves, stay close to the wall and move slowly. Plan your route in an anti-clockwise direction so as to approach corners with the ability to peek around them rifle half-mounted at the ready. This allows you to keep most of your body concealed. Of course for 'lefties' the opposite direction will apply. For once, full camo gear isn't needed, but do wear drab clothing to suit the farm buildings, rusting metalwork of silos and outdoor machinery as well as the darker areas in shade. Whichever attire you choose, when sneaking quietly around the outbuildings in this fashion, be mindful to the possibility of coming across any other people who might be working in the area. Remember, safety at all times!

Calibres and Kill-Zones

I'll always choose the small .177 calibre pellet, time in and time out for the dove but any of the popular calibres will suffice. Head shots and full on breast shots will see this bird cleanly dispatched. Remember though the head shot is very small. This takes accuracy especially shooting at awkward angles so more often than not I'll always take this bird with a shot that punches straight into the upper part of the chest cavity.

When you've shot your doves, don't waste them as the breast meat is quite tasty. Tougher than woodpigeon but cooked slowly and for a longer period it's worth the trouble of breasting enough to make into a stew or casserole. Mixed in with a bit of woodie, rabbit meat and root vegetables you've got a tasty meal and the farmer gets to 'lose' yet another cause of potential loss of earnings.

Woodpigeon (Columba Palumbus)

On a dull overcast day the woodpigeon, or as hunters affectionately know it, the 'woodie' can appear to be little more than a plump, large grey bird with a patch or two of black and white. When the sun hits the plumage, marvel at the attractiveness of its beautiful pink/mauve breast feathers, the brilliance of the white neck patches and glistening iridescence of the green/blue feathers that surround those attention-grabbing neck flashes. Even the bold black bars of the wings are etched with broad white bands

giving the woodie an almost regal appearance. Yes, the collared dove might beat it hands down for cuteness but you can't deny the woodie its place in the countryside as a very distinctive and attractive bird.

Unfortunately, it's the scourge of every cereal farmer, crop grower and market gardener in the land. The woodpigeon may be a dreaded agricultural pest, but it's a firm favourite with the shooting disciplines of shotgunners and airgun hunters – and as an added bonus it's very tasty. In fact alongside the rabbit it surely now rates as the airgun hunter's staple quarry species for year-round sport. With thought and know-how, decent bags can be achieved as you pick them out of the trees as they rest, or off the fields as they feed. Wherever and whenever you encounter the woodie, you can be sure it will prove a very worthy and wary adversary.



The wood pigeon is a major agricultural pest

Habitat

As its name implies, this is primarily a bird of the woods although depending on season it will feed and readily move over and on to fields. Due to its massive population figures, it can also be found even in relatively treeless areas, including towns and even some cities. Like the

collared dove it's becoming a much more common sight in urban areas. I suppose it's safe to assume it realises it's not under threat from the gun there. For nesting, it usually builds a small platform of twigs high up in the trees and will raise two to three broods. Unlike most other birds, the adults feed the young on pigeon milk they produce during and throughout the breeding season. This can start as early as March right through to October but depending on availability of food they have been known to breed even in winter. The young birds are known as squabs and can be seen over the fields come summer. They're easily distinguished from adults due to the lack of white neck patch and of course are a lot smaller. Some shotgunners consider it unsporting to shoot these naïve, inexperienced birds but I don't think a farmer in the land would thank you for giving them a reprieve. The reason being that woodies can eat an amazing amount of food, stuffing their crops to bursting at every opportunity – especially when feeding on oilseed rape, corn, wheat, young pea or bean shoots and ivy berries in the winter. Woodies feed three or four times a day, so ambushing them can be a very effective tactic when you've learned the areas they use as flight lines to the fields they feed over. Unlike a lot of other birds, its habitat is not in decline or under threat. Although some woodies are lost to foxes and cats, it has few natural enemies – most commonly those being the sparrow hawk, peregrine falcon, kestrel and buzzards. The latter especially can cause havoc when decoying, as the buzzard will spook the birds but as it's nature's way, we have to put up with the goings on around us as we hunt and adapt accordingly. Needless to say, if a buzzard is soaring and gliding around the area, the woodies aren't likely to be feeding confidently. However, none of these raptors pose a major problem to the bird's population figures.

Location and Behavioural Patterns

The movements of woodpigeon are very much dictated by the seasons and their need to find food and shelter. They can usually be found over fields during the daytime and around woods and copses in the evenings where it will return to roost, and depending on season, not forgetting weather conditions, it will often spend a lot of time in the woods. This is when the bird's distinctive and repeatedly used throaty 'cooo, coo, coo –

coo, coo' call will more often than not give its presence away long before you see it. The woodpigeon's voracious appetite and specific dietary preferences, coupled with the annual availability of those foodstuffs, are the definitive key to its location. Basically, if there's grain on the soil or crops growing in the fields then you'll find pigeons on them. It pays to know when the farmer is sowing, as the birds will descend like a plague as soon as the grain is on the ground. This is because, unlike some other birds, the woodpigeon isn't keen on scratching about deep in the soil; it rarely if ever will dig into the soil for food. It prefers to take easy pickings of seed kernels and grain off the top where and when it can find them. It also doesn't like getting its feet wet or muddy so when conditions dictate, look to the sitty trees for sport, the edge of woods or dry areas of fields with good drainage – a factor to take into consideration when choosing an area to set out decoys.

It stands to reason that to ambush them effectively you need prior knowledge of potential feeding areas, and the flight lines that the birds regularly use. A few days watching the land will soon indicate which 'lines' the birds fly up and along. They often follow hedge lines, a line of trees – even along roads.

In winter the birds really do have to search for food and can from day to day be found either foraging on the woodland floor, or around the bases of trees and hedges before they get the chance to descend on the winter rape fields.

Methods to Use

The successful pigeon shooter must be organised, well informed and disciplined in their approach and methods. Although major methods are decoying and roost shooting, the airgun hunter can have superb sport if favoured sitty trees are located. You can also encounter the birds while out wood-walking or opportunist shooting but more often than not as you sneak stealthily around, the first indication that any are near is the sound or sight of them clattering out of a nearby tree.

Talking of trees – when the birds are preoccupied, feeding on ivy berries in the colder months you can often, with prior knowledge, be waiting for them to arrive – well concealed to pick the birds off when they're gorging themselves. Or if they're staying deep in the wood

because of wet, harsh or cold weather conditions, know the areas they frequent when this weather arrives and carefully slip from tree to tree until within range. This is particularly challenging but very rewarding if successful.

Ambushing near watering holes isn't a method I'd rely on but if the birds have been feeding on cereal, especially corn, they seem to get quite thirsty. Discover a place they use to take on water, which unlike most other birds they actually do by sucking it up and you could well have a few good sessions. It could be a pond, stream or water trough, but I'd rather recommend you find the feeding fields they're coming from or going to and ambushing them there with the aid of decoys. If you want to get serious about woodies, then check the crop of the first few birds you shoot in a session, as this will give you good indication of where the birds might be feeding. Decoying, roost shooting and my preferred method of picking them out of sitty trees – they're all very productive methods for bagging a few birds.

Calibres and Kill-Zones

Either .177, .20 or .22 calibre is suitable to cleanly dispatch woodies at sensible airgun hunting ranges but the pellet needs to be placed with precision in one of three major kill-zone areas, depending on how the bird presets in relation to your shooting position. Crop shots shouldn't be taken as the foodstuff in the bird's onboard storage tank can be packed so densely that it can deflect or stop a shot being fatal. First and foremost is the side-on shot at the head and neck; next is the upper chest cavity, but only if you can slip the pellet up between a wing fold from below, and the angle into this area also has to be right so that the pellet enters the heart and lungs. If the bird has landed on the ground, aim for just forward of the shoulder/upper wing fold to put a pellet into the chest cavity. Alternatively, if shooting from behind, put one right between the shoulder blades, into the neck, or crack it in the back of the head.

If you don't mind spoiling or bruising some of the breast meat then there are times a hi-power, FAC-rated air rifle in .22 calibre would be my rifle of choice. This doesn't mean you can let power override sloppy shooting technique, but it does allow two very different target zones and when you've not that much time to select the kill-zone it's handy. To save

continually repeating myself I'll mention here that when using a hi-power air rifle, these kill-zones also apply for all the larger members of the corvid family. These are; a side-on shot in the frontal chest area where a pellet can actually crash through the front of the wing doing deadly damage to the bird's heart and lungs, and similarly, the full-on chest shot, aiming from the lower neck to just below the crop. For corvids, aim slightly off centre to the right or left of the upper chest.

A heavyweight .22 calibre pellet fired at 28-30ft lb out to 40 – 50yds retains a lot of energy meaning the lead projectile really can smash through the bird's protection to enter the chest cavity causing massive internal damage. Some might think this not the most sporting way to tackle the birds, but then again, what's the difference in that or a shotgun blast?

Feral Pigeon (*Columba Livia*)

As unlikely as it seems the feral pigeon's original ancestor is the protected rock dove but nowadays the ferals are just as likely to be related to domestic pigeons escaped from medieval dovecotes, or wayward homing pigeons. The word 'feral' simply means gone wild. Due to this, the coloration of the plumage can be extremely variable. It could be brown, slate-grey, black or even dove white. Any combination of these colours can be found, but the pigeon will usually still have double black wing-bars and traces of an iridescent purple green front/side neck patch and/or white rump, proving its rock dove ancestry. Don't be too worried about mistaking a feral for a 'rocky' as the latter is now very rare, confined to a few colonies on the sea cliffs of Scotland and the West of Ireland. More likely it could be mistaken for the stock dove, or a bedraggled racing pigeon.



Indoors or out, the feral pigeon is a terrible nuisance

The stock dove is usually more uniform grey with no white rump patch. The ‘stock’ also has a double grunting call rather than the traditional cooing of a dove or pigeon. In the case of mistaking it for a racing or homing pigeon, check that the bird has no rings on its legs. If you’re unsure and you don’t have a clear view of the bird’s legs, then don’t shoot.

Habitat

Feral pigeons are found everywhere and anywhere. A veritable avian avalanche of these flying rats flood our every town and city, so you’d be forgiven for thinking these felons stay around the streets all year round – not so! Like their close relatives (woodies, collared doves etc.), they move where the food supply is most plentiful. In winter they do stay in the cities and towns where they feed on scraps of food, usually fast food leftovers disposed of onto the floor by the thoughtless. Come the spring and summer, many birds periodically head out for the country to feed on

freshly sown grain as well as general farmland stubble. It's also not unusual to find them in the company of woodies and I've shot countless ferals over the years that have landed amongst decoys. Although they usually nest on beams and amongst the roof space of disused buildings, they're not fussy where they site their sparsely built nest of twigs; any hollow, or sheltered ledge will, but they do prefer it to be indoors.

Location and Behavioural Patterns

Due to the bird's ability to adapt and its inherent nomadic nature, ferals can crop up almost anywhere on your shoot. More likely than not around farm buildings where they can often be found in the company of collared doves. When you find them in the open country, the best time to try to thin them out is in the spring before they drove back to the towns to breed.

For pest control purposes, this is the main place you'll be able to shoot them in any great numbers when they colonise abandoned buildings, factories and industrial units. Gaining access to shoot here isn't as difficult as you may think as any small business owner with a feral problem is worth approaching – as long as you do so in the right manner. If you gain permission, wherever practical and possible shoot them off the roof as inside work is specialised stuff, but not beyond the capabilities of the practised and disciplined shooter – more of which later. Before going inside to find them, though, you'll first see them sitting around the same areas for most of the day. The same applies to the barns and outbuildings on your shoot. Look to the ledges, ridging tiles and the sheltered, sunny side of the roof. They certainly seem to have favourite sitty areas, especially in the colder weather when they can take advantage of the expelled warm air from chimneys and factory extractor fans.

Step inside a disused building and you'll have no trouble locating the birds as under the areas they roost and rest the floor will be a quagmire of droppings. This is one of the main reasons you'll be asked and allowed to shoot inside an old building they've taken over and you'll have to take them out; and depending on the building you're in, you could find yourself in some pretty nasty conditions.

Methods to Use

It's hard to believe that you need official sanction to dispense with feral pigeons. According to DEFRA (Department of the Environment, Foods and Rural Affairs) it has to be confirmed that they are causing a major problem, as specified by the department. Usually they are, but you are only authorised to shoot them with the building owner's permission, and the fact that other methods such as scaring and netting are failing to contain or evict them from the premises.

Obviously, the main qualifier for culling is that they present a major health hazard which they undoubtedly do, due to their droppings containing a multitude of dangerous pathogens and diseases, and it goes without saying, like rats, when you shoot any don't pick them up without gloves, and dispose of them in the correct fashion by burning.

We're now getting very much into the realms of serious pest control and a situation the majority of sporting airgun hunters won't ever want to be in, or find themselves asking to do. However, it's worth remembering that doing such a favour can have the knock-on effect that your name is passed on to somebody who might have some land. Word of mouth usually means another feral clearance job, or some rat shooting is in the offing. If the latter is around a farm barn or outbuildings this could well score you some field shooting, depending on how you conduct yourself.

As we're back at the farm, around the farmyard the method for dealing with ferals is exactly the same as for collared doves; stalking around the outbuildings and even baiting them down with grain or even bread, but we still come back to the fact that most serious feral bashing and rat shooting for that matter will be done indoors. Due to this, I'm purposely going to deal here, as a prelude to the chapter on Hunting Techniques, how best to go about your shooting inside old buildings, barns and around the farmyard itself. Take note of the latter as ferals are partial to sitting around on the farmhouse roof so we'll check out the etiquette of shooting around the farmyard. First, forget ferals for a moment and consider the opportunities of being allowed to shoot inside the big main barn on the land you've maybe recently gained permission to shoot over. This is a big chance for you as an airgun hunter to prove yourself. No live round sporting gun is needed here, just the precision, modern-day air rifle, running within the 12ft lb legal limit, in your hands.

That's why you're here looking at a feral job, so before you go lumbering in, double check your zero, your accuracy, your kit – everything. Most of all be sensible and show how responsible you are as you go about your sport. Firstly, though, the C & Ks of the feral pigeon.

Calibres and Kill-Zones

As I've stuck to a formula for these Quarry Files, and although the feral is a nasty, disease-ridden pest, it still deserves to be dispatched correctly. Incidentally, it's worth mentioning, some shooters use detuned (lower power) rifles due to the fact the birds are shot at such very close range, especially indoors. This is to lessen the possibility of over penetration at the target. That's a specialised route, and one to consider, but for the majority of airgunners who get the chance to go feral felling, a standard hunting combo will be more than adequate. Though I favour .177 calibre for most hunting situations, for this work I prefer a good old .22 slug. This is also one of the only times I'll mention the .25 calibre as an option. Here it can be useful as if a building hasn't been cleared for a while, targets will more often than not be encountered well within 20yds and that big piece of lead drops them like a stone.

Kill-zones apply exactly the same as they do for the woodpigeon but with one big exception. If you think the woodie a tough bird then this is the 'Arnie' version. OK, somewhat of an exaggeration but it is true to say whilst the woodie has soft downy feathers the feral has a relatively thick layer of full and very strong feathers all over its body, a sort of avian armour plating. These feathers can absorb quite a lot of the pellet shock value, so place those pellets carefully, especially if using the chest kill-zone.

Shooting Specifics – Indoors and Outdoors

First Up – Indoors: This form of hunting opens up a whole new range of opportunities for the shooter. Invariably, you'll be shooting for pest control only because your targets, as we've outlined, will mainly be feral pigeon and, of course, rats. However, at times when the weather isn't very conducive to outdoor work, having the opportunity to shoot legally indoors can be a welcome and challenging alternative. In some cases you

could get the chance to cull collared doves but in most cases you'll be evicting feral perils and scaly tails.

The first major factor to take into consideration when shooting indoors is your own personal safety. Ricochets can have dangerous consequences and if shooting inside abandoned industrial units and even places you are unsure of, always note if you see bare wires. You can't be a hundred per cent sure a wire isn't live until it's too late so don't go near them. Also watch for rotten floorboards, rubble underfoot, rickety stairs and dodgy ceilings. As this isn't a manual on feral pigeon clearance I'll stay on the sporting side of advice but even so, In the years I've been shooting indoors I've been into buildings that quite frankly should have been condemned, so be warned. Also, you always need to pay particular attention to what lies behind the target. Airgun pellets punch nice neat holes in corrugated or plastic roofs and no farmer wants his outbuildings to have roofs like colanders.

If you walk in during the day and there's still a few about, then that's fine – shoot them off the beams they perch on. Until they wise up they'll sit there thinking you're a farmhand or factory worker depending on location of shoot. At night it's a different matter altogether and, of course, you'll need a lamp. Incidentally, a word on the use of lights for indoor feral pigeon shooting: under the 1981 Wildlife & Countryside Act, it's an offence to use a device for illuminating a bird to shoot it. However, provision is also made in the act for the grant of an annual licence that allows feral pigeon, amongst others, to be culled with the aid of an artificial light source and sighting device for purposes of pest control.



The aftermath! The scene after a feral pigeon cull – not a glamorous job, just sheer pest control

So, once all legalities are satisfied, before getting in there to shoot you need suitable clothing. A disposable boiler suit and a dust mask are sometimes needed, such are the conditions, but many times an old pair of combats and jacket will suffice. If it's a factory unit, presumably it won't be too disgusting and the occasional walk around, with the permission of the owner, to curtail the numbers is good to tone up your shooting practice. Incidentally, in many old outbuildings and disused industrial units there'll be no light, hence the provision for the use of a lamp. Some opt to work with another person, one shooting while one 'spots' and operates a hand-held lamp. Others prefer to go in solo with a gun-mounted lamp. If unsure of the area, the building and even if you feel more at ease, I advise you go with another shooter, but if in pairs or alone, the correct way to deal with pigeons at roost in buildings are the same. That is to enter the building sweeping through the areas or rooms methodically, then after shooting all those you pass, move out to rest the area for a while. After a reasonable amount of time, repeat the procedure until the ferals are sorted. The entry points they've used which are often broken windows, holes in the roof etc. need to be covered or else they'll be back in before you've finished showering at home. After shooting,

collect all the dead birds, using gloves, and sack them up to be disposed of properly by incineration. Those that drop stone dead up on the beams should be retrieved or else you've provided free rat food.

I know, it's not sport, it's not exciting, but it's a job that at times needs doing and with the air rifle you have the perfect tool to do it. Talking of which, this is an ideal situation to use a quality springer with open sights or gas-ram-powered rifle with a quality red-dot sight. No messing around finding the target in your sights and you won't need to magnify the target anyway. Even if using a multi-shot PCP I've often been thankful of the super-fast target acquisition the red-dot sight affords and believe me, get amongst a colony of established ferals and the action can be fast and furious! Similarly, if using a scope, a laser is useful for giving a quick ranging reference.

Incidentally, this brings me to a much-overlooked nuance of indoor shooting and another reason to use these alternative-sighting systems. As with shooting outdoors at night, enclosed areas can play havoc with rangefinding. Shots can seem closer or further than they actually are. In fact, optical illusion will make upward shots seem closer and shots along to quarry on the floor will appear further than they actually are or vice-versa. And that's with the building lights on. So as you can see, ranging difficulties aren't something you'll only experience when using a lamp.

Outdoors – Close To Home: Usually, unless stipulated the farmhouse will and should be out of bounds unless you're invited in for a brew and a chat. Remember this is your host's home. By all means, when allowed, stalk around the barn, storage units, pigpens and cattle sheds but respect the farmer's privacy. If you are going to be shooting around the farmyard always ask and let the farmer know. You may be lucky enough eventually to be given carte blanche on the land, but near the farm and inhabitants take no liberties with your host's generosity. Also, farmers and their workers start early, and that means there'll often be people around from first thing in the morning to possibly late evening. Sundays are better as even the farmhands at most times of the year can be scarce on this day. Even so, never take a risky shot; don't presume someone won't walk around a corner. Let the lads in the yard know you're there even though you may have told the farmer, and always let them know which part of

the farm you'll be going to next. Again, ricochets can be a problem if a misplaced pellet deflects off a concrete wall. Watch while taking upward shots, plastic guttering, lead flashing, asbestos roofing, security lights – all are no-no's if near or behind the quarry targeted.

As outlined in 'Seasons ...' many quarry species will be found around the farmyard, especially in summer. Corvids can crop up anywhere looking to scavenge food, especially around dung heaps. Woodies stop over at any time and of course the collared dove is virtually guaranteed to be around. It's not only opportunist shooting, though, as for the flying felons you'll often need to plan your trip with more care and more often than not build a hide. Yes, a hide isn't only of use in the open countryside. You might even need to build one in a barn itself if targeting feed-stealing jackdaws, collareds or ferals. Luckily, there'll be plenty of materials in the outbuilding to use, such as wooden pallets, sheets of corrugated iron, heavy-duty cardboard sheets, old empty grain and feed sacks ... anything that blends in with the surrounding area. My preferred material if present, and more often than not they are in abundance, are hay bales. With a bit of ingenuity, a few hide poles or garden canes and a suitable amount of camo netting, you can construct a hide that allows you to be fully hidden yet affording a good view of the marauders' comings and goings, but, I must again stress the importance of letting others know where you are and what you're doing. If there's the possibility that the area will be used by people, the utmost caution is needed and every precaution taken to ensure the safety of those concerned.

Every so often the farmhouse garden may even need a periodic ridding of pests. Squirrels and magpies that come to a bird table are easy targets and need evicting if becoming troublesome. With you, the airgun hunter, around they won't be there for long and you'll earn yourself some brownie points with the boss.

There are a few tricks to shooting around farm buildings that have been detailed in the section devoted to the collared dove so all that was written there obviously applies here. Another tip though is when shooting around machinery; if resting your rifle on anything to steady your aim, take care not to knock the rifle on anything so as to cause any noise. In the early morning, metal-to-metal contact of an air reservoir, cylinder, barrel or silencer on the side of a tractor can be all that's needed to give

your presence away. As for the birds that don't tumble off the roof but lodge in guttering, ask to borrow a ladder and get them down. There's nothing worse than leaving quarry in this situation as it'll cause blockages where it lodges, and the owners won't thank you for a blocked drainpipe should it wash into one after a downpour.

Shooting Near Livestock

Whether shooting indoors or outdoors, when faced with this form of shooting there are obvious safety aspects that need addressing. It certainly needs a degree of shooting discipline as there are many times, infuriating ones at that, when you'll need to hold off taking a shot because the quarry targeted is too close to livestock, or the backstop behind the target isn't safe. Whenever possible, always shoot away from livestock and try to avoid even shooting over the top of the animals. Obviously, there are times you'll need to shoot over them but use your commonsense and discretion. Don't ever drop your rifle too low and don't think you can skim over the animals. Upward angles are fine but, as always, consider the likelihood of ricochets. Animals in pens will be unpredictable, sometimes they'll stay put and at others walk to the far side of the pen. If they start getting too twitchy, stop shooting. Some animals, such as pigs, can be quite tolerant to you shooting near them, others not so. The farmer won't thank you for scaring his prize heifers or having his sheep constantly jumping around. Be sensible, and always think before you shoot.

Carrion Crow (**Corvus Corone Corone**)

Reputedly capable of living for up to 20 years, it's little wonder the crow is so wily and cautious as it has plenty of opportunity to learn that humans pose a major threat to its survival. It's undoubtedly got very keen eye-sight, which it uses to scan continually for feeding opportunities or danger, but don't discount the bird's uncanny ability to detect dead carrion. I'm not the only one of the belief that it does so, due to an acute sense of smell. Seemingly the bird can home in on carrion not clearly visible from hundreds upon hundreds of yards away. Little wonder that

baiting-down with a slit-open rabbit is so effective at drawing them to a shooting position.

The carrion crow is the largest of the corvids (crow family) that airgun hunters are legally allowed to shoot. With a large, thick-set stocky body, uniform blue/black plumage and a lighter, shiny black bill. Older birds look bedraggled and often have white feathers in their plumage. I've even seen all-white crows that couldn't be classed as albinos.



The carrion crow is the wiliest of the wily

I'm sure most hunters have heard the saying 'lonesome crow.' Well, study the behavioural pattern of this corvid and you'll soon come to realise this is only partly true. Crows will gather, move, feed and roost in large numbers at various times of the year – especially after breeding in summer and in autumn into winter. Although generally it doesn't flock to nest, like its close relative the rook, it can sometimes be found nesting close to others of the same species, and on the outer limits of large rookeries, but by and large, when breeding, crows prefer their own space and both noisily and aggressively guard the territory around the nest.

Habitat

The carrion crow is at home over fields with a few trees as it is in dense woodland, moorland or even close to the seashore. At the shore it takes on characteristics more attributed to the familiar gull, beachcombing the estuary and sand flats for foodstuffs such as small crustaceans, lug and ragworm. This is one of the reasons it has been so successful in colonising areas and becoming so plentiful. It is just at home scavenging on an inland rubbish tip as it is in the woods, over farmland and on the coast. All but absent in Ireland, and not too common in parts of Scotland where it's replaced by the hooded crow (*corvus cornix*), it is nevertheless, widespread in the rest of the UK. Incidentally, whilst it was once supposed the 'hooded' was a sub-species of the 'carrion' it's now widely acknowledged that they're both species in their own right.

During late spring, unattached crows pair off (apparently staying together for life) and will then move regularly in pairs. During the colder months they cover quite a distance between feeding areas and the communal roost. Although it roosts in numbers, on the whole it can often appear to be quite solitary and at times single birds (hence the 'lonesome' saying) seem to wander lazily and aimlessly over the land, especially in the daylight hours of winter. In that respect, despite the obvious similarities, it is not like the rook. In fact its behavioural patterns ally more closely to the magpie than any other corvid. Indeed, it's quite common to see a few magpies moving around or feeding with a crow noisily bringing up the rear.

Having said that, when it comes to being with its own kind, the carrion crow does display a very complex social infra-structure, especially when large numbers descend to feed over fresh cut grass fields, cropland or amongst pasture land, used for the grazing of livestock in the summer months, and the behaviour of the crow is very much dictated by the seasons. For instance, large numbers can be seen in the company of jackdaws and rooks feeding over fields in summer. Similarly loose packs join up on their way back to roost, a place where once again the bird's complex social behaviour is very evident. Interestingly, it's believed that certain individuals take it upon themselves to act as sentries sitting on the outskirts of the roost or feeding area to watch out for any potential danger. I've noticed this and it does have some credence. It's

also worth noting that when crows are found in small groups these gatherings are known as a murder of crows, and taking the birds loathsome nature, a very fitting term it is too.

Location and Behavioural Patterns

Look over the five-bar gate to the far fields where the sheep or cattle are grazing and the black dots strutting and pecking incessantly around are more often than not crows. Indeed, if there is one certainty, where there are sheep, you will always find crows, jackdaws and to some extent rooks. The stories told of crows sitting on the backs of a young sheep pecking at their eyes are based on some truth. Not only do they sit on sheep to peck at ticks and insects in the sheep's wool, but they'll also attack the new-borns, sick and weakly.

The birds will attack the lamb, first pecking out the eyes then attacking the soft flesh of the throat. Once the hapless lamb is debilitated to the degree that it cannot stand, the crow, singular or in groups, will descend to finish off the animal, pecking at any soft areas of flesh. They certainly seem to have a liking for the tongue. Needless to say, lambs or adult sheep that die by natural causes are absolute magnets to these birds.

It will, however, more readily kill and eat other small animals such as frogs, voles and even young rabbits, using its heavy, big black beak as a formidable instrument of doom, and whilst the crows' varied diet does consist of grain, seeds, worms and beetles, it will always prefer to take eggs, nestlings and gorge on carrion of any description - hence its name. It's not all carnage when they're next to livestock. They follow flocks of sheep around primarily to pick up anything edible that the grazing sheep might disturb. This is also the reason that they follow cattle.

Finding a roost isn't difficult either, as when evening starts to draw in they will come lazily flapping over the fields making a beeline straight to their communal roosting site. Hence the origin of the phrase: 'as the crow flies'.

During autumn, you can almost set your watch by them as they fly home to roost. If you're lucky enough to have a roost site on your shoot then you'll be in for some cracking crow action come the colder months when hundreds upon hundreds can often be found heading back to stay at the same roost. Be warned though, as the crow learns very quickly and

seeing a few of its own tumble from the trees will soon cause it to rethink its sleeping arrangements, probably never to return to that area of the wood again.

Its feeding areas tend to be much less localised. In summer when the younger birds have paired off for the first time they establish and stick to their own definite territories.

When the crow is nesting, even if it hasn't as yet got chicks to raise, both adult birds still only tend to search for food within a few hundred yards or so of their nest site. This is quite a small territory but it serves the birds well at this time of the year.

Crows display very strong parental instincts towards their young during early summer. They feed them on the ground and show them how to feed; the young cawing incessantly for attention and food. The adults peck around the ground near the young bird encouraging it to do the same. The birds will frequently stop to preen the youngster eating the ticks that infest the bird's coarse, thick feathers, but this cosseting doesn't last long as the adults soon start to ignore the sibling, realising that it needs to become independent in order to survive.

When the young are reared, then they all wander far and wide and this is a time when most hunters can encounter them and attract them within range of a shooting position. A very productive time is late summer after the young crows have started to fly and follow the parents. Large flocks of adult and young birds can descend onto fields of barley, corn or flailed maize. They will also, like the woodpigeon, take advantage of flat spots caused by wind or rain. They can even flatten low growth areas and cause even more damage as they progressively tread down the crops as they eat out into the field. Find an area such as this and set up a suitable hide and you could well score yourself a couple of memorable sessions before the flock decides to move to safer feeding areas. In built-up areas, like the magpie and in some areas the jackdaw, it's found in and around human habitation. All scavengers know that they get easy pickings in these areas but obviously these are not the places for the hunter.

Methods to Use

For hunting this particular corvid you have quite a few options. Baiting-down, ambushing them from a hide next to a feeding area or an

established sitty tree, or an opportunist shot when hiding up in or next to woodland awaiting squirrels or woodies. Forget trying to stalk up on the bird; it's the wariest of the wary even if in the trees, so stick to the methods outlined in full later in the book if you don't want to be ripping your camo gear off in frustration.

Like the magpie it's the early riser of the bird world. That means whether ambushing or baiting-down you need to be up well before dawn and in position to reap the rewards.

The daily nomadic scavenging nature of crows means they can crop up unexpectedly anywhere on your shoot – just one of the reasons an opportunist shot can always be a possibility.

The crow's scavenging and curious behavioural patterns can sometimes be its undoing. Often when using decoys to bring woodpigeon within range shooting in autumn over stubble fields, and especially if using a 'confidence crow deek' I've had crows drop down for a quick look. They don't stick around long but if you've downed a few woodies, you should be tuned in enough to sight in on the kill-zone and successfully take the shot. To bag a crow or two is always a true test of your fieldcraft, hunting and shooting skills. They don't call 'em 'crafty' for nothing you know!

Shooting Techniques Specific to Crows

During the summer into autumn, shooting crows over feeding areas can be very time consuming – specifically in relation to how long you need to wait in the hide between shooting spells. This can vary depending on how frequently the area has been shot. Now, whilst they come to fields holding sheep where they raid the creep feed troughs, they also like bovine company. Take advantage of this by setting a hide near an area of a cattle field they're known to frequent. They will systematically work over a field pecking through cow dung; this distasteful habit shows the carrion crow for what it is. The birds will appear from the roost to congregate in the tops of trees and on power lines and pylons adjacent to the field they intend to feed over. As if a switch has been turned, the birds will then land in the field in twos and threes, with a continuous flow of birds arriving and most, if not all, will land next to the birds already feeding. They'll be seen to land almost on top of one another seemingly

looking to take the other bird's food and squabbling over the foodstuff found in that area. Slowly but surely, they'll work their way over within range but you need patience as sometimes this can take quite some time. Once the birds are within range, shoot the one that seems the most dominant; easily distinguished if there are younger more inexperienced birds near it. Once you've downed a crow the rest will take up to the sky, but more often than not, some birds can often hop over to peck at the downed bird whilst others wheel around in the sky cawing loudly from above. This affords another shot and if successful even more will come to harass the dead birds. While this can happen, alternatively, after maybe a minute, but it always seems a lot longer, the birds will eventually leave the area to sit high up in nearby trees or on power lines to survey the scene from a safe distance.

From here they'll eventually return – hopefully for you to pick more from the flock. In fact, if you shoot with a partner it can be very productive for one shooter to be positioned hidden at the side of the wood, within striking distance of the sitty trees and one in a hide adjacent to the field they're feeding over. This can often keep them moving but they don't fall for this trick too many times before feeding on safer areas or infuriatingly coming down to feed again but always keeping out of range.

At times, action can be hectic as you knock one crow over, then another. A magpie might zoom in as if from nowhere to stand stock still next to a dead crow. This peculiar behaviour is only displayed by members of the corvid family, but is certainly one that the airgun hunter should be aware of so as to take advantage when it presents itself.

As fast as the birds are seemingly oblivious to danger and preoccupied behaving in this uncharacteristically reckless manner, one shot more can see the birds vanish to safety. In this and other situations it seems that corvids, and I specifically include the crow, rook and jackdaw, all display a very complex pattern of social interaction. One minute they will squabble over the feeding area but quickly establish a pecking order, and the next, it can appear to be a mass free-for-all during which the shooter should take advantage of this confusion. After many, many years spent watching and shooting all the black corvids, I reckon there's still a lot to learn of their complex behavioural patterns.

Calibres and Kill-Zones

The main kill-zones on this wily old bird have to be the head or heart/lung shot. When possible take a side-on head shot or full-on neck to upper chest shot. If the angle presents itself, a slug in the base of the back of the skull is equally effective. One of the traits the bird shares with other corvids is, when sensing danger it will turn around showing its back, while looking over its shoulder, usually just before it flies up and away. It's at this point you have a chance of the deadly kill shot into the back of the neck and between the shoulder blades. If shooting from below, slipping a pellet up into either side of the bird's upper chest under the wing fold will find another weak spot. It has little protection here at the chest under those heavy wings.

Some say .22 only but place a .177 or .20 in these kill-zones and it's goodnight Vienna for this crafty corvid. When using hi-power air rifles, the same alternative kill-zones apply as outlined earlier in full for the woodie.

Jackdaw (*Corvus Monedula*)

Of all the quarry species airgun hunters are legally allowed to shoot, the jackdaw must surely rate amongst one of the most intriguing, with that grey neck-cape giving them a look of a balaclava-clad burglar ready to get up to no good. Despite its noisy, troublesome behaviour the jackdaw is quite a pretty bird with its glossy black plumage, grey neck and head feathers and when seen close up you can't fail to be charmed by the pale blue iris of the bird's very keen eye. Their 'coughing' call is quite unique to this bird, seemingly being an alarm call as well as a call for general location and contact between individuals. This metallic 'tchak' or intermittent 'tcha-ak' sounding call usually heralds the bird's arrival on the scene but equally if being cautious it can almost appear as if from nowhere. Being one of the smallest of the corvid family, when keeping quiet, they're equally expert at unobtrusively going about their daily routines, but during the breeding season, especially during the mornings or evenings the birds can put on fascinating, acrobatic aerial displays as they fly, flit, glide and soar, twisting this way and that around a church spire, or high above a group of tall trees on the wood's edge.



The jackdaw is a very intriguing bird

Habitat

Jackdaws are nomadic in nature but will flock readily with their own. Primarily a bird of woodland it ventures out to feed and in many areas to breed. This is when the jackdaw often presents itself as a problem when nesting in buildings in rural areas – doubly so if they've taken to regularly visiting farms with livestock and large outbuildings. When near human habitation, the jackdaw's fondness for nesting in dark crevices often has them nesting in chimneys or ventilation outlets of houses. This means they are a potential fire hazard not forgetting the raucous racket they make eventually having the most tolerant of homeowners in despair. In fact, in many rural areas, the chimney outlet is covered with mesh to prevent birds nesting. Church spires often have ledge spikes installed by professional pest control companies, primarily to prevent the intrusion into the holy building from feral pigeon. Unfortunately, the smaller jackdaw can easily slip through these and sometimes they actually use them to secure their untidy bulky nest to the building.

Although all viable hunting methods are discussed later, I must make mention here of the correct procedure for dealing with a situation where a pair or group of birds are nesting in an urban or rural dwelling. It must be stipulated that even on a one-off localised house shoot you need the property owner's written permission. Targeting them in these situations isn't difficult as long as you adhere to a few basic rules of safety. Firstly, ensure no stray pellets leave the area you're shooting in, which by and large can be a medium to even a large estate garden. Also, be thoughtful to the neighbours. Without fail, go around the houses that overlook the property or those nearby to let them know the situation. This has not only assured the people that all is above board and safe but can also even gain the responsible airgunner a few extra jobs. These can range from dealing with pesky squirrels to eviction orders placed on other unwanted neighbouring jackdaws and magpies.

In respect of problems for the crop farmer, they cause damage to newly planted cereals but they have to be present in large numbers. Like crows, they're drawn to the presence of sheep; not only in the fields, but also where the sheep are fed on sheep pellets the jackdaws can acquire a taste for this high protein foodstuff. It's not uncommon for the birds, by learned behaviour, to know when the feed is being put out and be there ready and waiting to descend suddenly to steal the amount they need. They'll also invade the farm outbuildings if the sheep are inside at lambing, and if left to their own devices will swarm over the sheep pens picking at anything that looks even remotely edible.



Pairs and even small flocks of jackdaws can put on fascinating acrobatic aerial displays

Location and Behavioural Patterns

An unfussy feeder you'll find jackdaws anywhere they can find food. Scavenging for scraps around picnic tables, walking amongst pedestrians in the rural areas picking over fast food leftovers, or out in the country – hanging around the creep feed troughs in sheep fields – yes, they know where life is easy. That's why when they find a free meal, they'll regularly come back to it.

Locating the roost sites around buildings is simple as you only need find the white splashings familiar to all roosting birds. It applies to some extent for woodland roosts but these are more readily found by

observation in the evening. The birds coughing call rings out over the fields as they fly into the woods to flock tightly together in chosen trees. Roosts can be well established, deeper in the woods than a woodpigeon's and often shared with crows, but as with other roosting birds, once disturbed by shooting they'll very quickly move to a safer area.

Come the spring and jackdaws are easily located due to their untidy nest building. Underneath a church spire, house roof space or tree with dense foliage you'll find thick twigs and sheep wool littering the ground; the two main materials the bird uses to build its very bulky home. In areas near human habitation, the nest is also padded out with any manner of litter it can find in the area, such as bits of plastic, crisp packets, bits of cloth – the jackdaw isn't house-proud.

Although the birds pair off for breeding, and to some extent nest alone, they will often be found in localised groups. Unlike the crow, seemingly no dominant birds have a specific territory, rather they share the feeding areas around them and seem to communicate and move as a flock especially after breeding and when out feeding when the juvenile birds boost the group these can number considerably.

They feed liberally amongst other corvids, particularly rooks and crows. It's also not uncommon to see them feeding over pasture with woodies and even starlings.

Methods to Use

The time to target jackdaws, like other members of the crow family is in the spring as they prepare for, or are actually raising young. However, the sport with the birds in jackdaw plague areas can last all year around and once you've found areas the birds regularly visit to feed you can be sure of some satisfying yet challenging shooting. If the jackdaws are visiting these feeding stations, whether outside or inside buildings, you need to be in position and shooting from a hidden position, or if outside using a hide, wearing full camo clothing and using all and any natural cover that's available. The birds will noisily arrive very early in the morning in large flocks to initially gather on sitty areas close to the source of food before dropping down to dine. Then they'll leave to return sporadically throughout the day in twos, threes or fours.

Not all the birds will disappear over the fields or back into the woods after the early morning feeding raids. In fact, even during the hottest of summer days a steady but dwindling procession will visit the area throughout the day. By mid-afternoon the birds will usually show up very infrequently, and when they do, it'll be in very small groups.

Outside, you need to wear full camo wear, and if there is any hedge cover to shoot from, use this or alternatively erect a hide near the sitty area. Small, portable, pop-up hides are great for quick concealment at times and in situations such as this. When shooting in this manner, better to have the birds come in small numbers, especially pairs as often you can shoot one from the sitty area or feed trough, whilst the other will at first fly up but circle around the area calling down to the fallen bird. Sometimes it will land on the sitty area, which will be high structures such as telegraph poles, overhead wires, rooftops etc., still calling to its mate. The second bird will only land briefly to survey the scene below before flying off, rarely if ever landing near the shot bird, as can be the case with crows or magpies. If the second bird is going to land, it will almost certainly land up aloft so keep your eye on the circling jake, while keeping your rifle raised towards the area you expect it to land. The reason being, in this agitated state it won't tolerate the sight of any movement on the ground, so as soon as it folds its wings to land you want to have the muzzle pointed in the general direction, positioned so as to be able just to take aim carefully and shoot.

Roost shooting isn't as profitable due to the shorter time slot you have to shoot them and their intolerance of intrusion when disturbed, but again, this is an area where they can be targeted.

Calibres and Kill-Zones

Like the jay and magpie this is a relatively small bird, therefore the kill-zones are equally small. Any popular calibre placed with precision into the head or upper chest cavity will see it cleanly dispatched. The chest shot will be most practical as the bird hardly keeps its head still, constantly searching this way and that for something of interest to see or find. If shooting when they've entered a building then all safety aspects (dealt with in the relevant section pertaining to indoor shooting) apply. It's the same for when shooting near livestock.

Jay (*Garrulus Glandarius*)

It's debatable whether the jay should even be on the airgun hunters hit list as it's not nearly as common as it once was in many parts of the country, but as it's deemed legal vermin for control with the air rifle, and considered one of the main target species, it warrants inclusion here in Quarry Files. Personally, I rarely shoot these birds but I presume it's been tagged as vermin on the list for pest control because of its somewhat tenuous links to the rest of its relatives in the corvid family, but rather than preach my own belief, I'll say the decision to shoot this species is best left up to the individual.

Originally, there's little doubt, the bird was targeted for its plumage which was used for decorating hats, and still is used for the making of fishing flies for sea trout. A pity its coat of many colours then has put it in our sights, but it does cause some upset in a habitat where it is in over-abundance.

However, the bird's beautifully coloured plumage belies the fact that it's a member of the corvid family at all; so unique that it's hard to describe the bird with its almost peach/pink, brown-coloured body, white bib, with thick black stripes leading from each side of its beak. The wings are the most prized for fly tying, with the striking blue side flashes with white patches and black wing trims and broad black tail feathers.



The jay – a technicoloured corvid

Habitat

Found in both broad-leaved and coniferous woodland there's no doubt the jay is at home in the heart of the wood. Now resident throughout the UK except in Northern Scotland it rarely leaves the protection of the trees. It favours established oak woods but is equally at home around beech and hornbeam woods.

In the areas these habitats are being reduced it will then move into suburban parks and gardens. Interestingly, the resident population figures fluctuate quite wildly because at times, large numbers of Central European jays migrate here during early autumn.

Location and Behavioural Patterns

A shy and cautious bird, the jay must surely be one of the most difficult quarry species to find intentionally. In summer, you'll most likely only

hear its harsh screeching call as it sweeps through a glade, or alternatively, in autumn through winter, you can often see them flying in their characteristic bouncy fashion across your path with an acorn in their beak. Like the squirrel, in autumn the jay will bury acorns for retrieval later when food is getting scarce. Obviously, they don't remember where every one is, so the upside for the natural environment, is that the jay is one, if not the most important, natural planters of acorns, and therefore helping to conserve and distribute natural oak woodland. This, in itself, leads to why in some areas the jay is best left to its own devices.

Even though it's so colourful, a jay can miraculously disappear in a tree, even one with sparse foliage. Whilst it will steal the eggs of small finches and songbirds, it's nowhere near as bad as the magpie. It can easily thrive without thieving and pillaging due to its love of acorns, hazelnuts, beech mast, seeds and insects.

Methods to Use

Of all species the jay is probably only ever going to be encountered while opportunist shooting and wood-walking. Whilst at times quite nomadic, make note of an area you see jays frequenting as the bird is very territorial and staid in its ways, staying within its own territory to feed and breed. During the breeding season it can be annoyed with a little owl decoy placed within its territory. Be in position and it could well show itself for a clear shot.

Alternatively, at other times of the year due to their habit of carrying off food to bury, you can wait around these areas and pick them off as they go about their business. In fact, when feeding, they often carry food in their beak up to a favourite tree branch to pick out the kernels. Again, locate one of these through very dedicated and careful observation and this can be an area to wait in ambush for that lone solitary bird.

As this is a very shy but busy bird, the first indication a hunter has that a jay is close by is often only when the technicoloured corvid flies past to disappear into the trees and foliage.

In winter, this gives the bird away and those who are quick and keen of eye can watch the bird land amongst branches then flit upwards until flying on, hardly before pausing for breath. Jays hardly keep still. This is

the main reason this bird is so hard to target. Also, it has the uncanny habit of keeping twigs and branches in between you and it.

In spring and summer, the only time you get to take a shot is when it pops its head up above the leaves to take a look around before flying off. In fact, truth be known, hunters targeting squirrels deep in the woods will often be the ones who encounter most jays.

Calibres and Kill-Zones

As this is a relatively fragile and small bird; the same kill-zones apply as with the jackdaw and magpie, as do calibres. If you do shoot these birds, at least know someone who will use the feathers for fly-tying or a retailer who will take them off your hands for this purpose.

The Magpie (Pica Pica)

The most notorious of the corvids, the magpie can't be mistaken for any other bird native to the British Isles. With its iridescent blue/black and white plumage, long narrow wedge shape tail and raucous call, it is bold, brash but very wary. Like other members of the crow family, landowners and gamekeepers persecute it due to its fondness for the eggs of game birds. Equally, it can totally decimate the songbird population of an area that it is becoming a nuisance in. However, a born survivor, it'll just as happily feed on grain, seeds and insects which in actuality at certain times of the year make up the greater part of its diet.

There's no disputing the fact that the magpie is undoubtedly a nest raider, taking eggs as well as chicks of all species. This behaviour is thought to be the reason it builds its own nest as a doomed roof structure so birds flying over cannot see into it, but that doesn't mean it's totally safe as I've personally witnessed other magpies invade and plunder another magpie's nest.

The 'maggie' is widely credited with hoarding food, and to taking a liking to shiny objects. Again, this is largely based on truth. In old England, the bird was known as the 'maggot pie'. Supposedly, maggot alludes to the name Margaret and pie is derived from pied, an allusion to its black and white plumage. For the airgun hunter this bird will, at times,

test your fieldcraft skills to the full, not to mention your patience to the limit.



The magpie is a notorious egg thief

Habitat

In recent years the magpie, like the fox, has adapted well to urban existence, and is a common sight around housing estates as well as city-centre parks and gardens. In its natural habitat of deciduous woodland and hedgerows, it's perfectly designed to prey on the weaker, smaller inhabitants. It is active throughout the year, but will retreat into woodland in harsh winters and come the breeding season in spring into early

summer, will haunt the bushes and hedgerows that surround the woods. The magpie is most commonly found moving around areas in a seemingly non-stop search for food in small and even quite large groups. The latter gatherings are more commonly seen in winter, when like its relative the carrion crow it can flock with its own kind or mingle in with crows to feed over grain fields. The birds will eventually pair off to breed, which can be as soon as late January when they start to build, return to repair old nests or take over nests of others. The usual breeding and laying takes place in April or May.

As mentioned before, the magpie will eat virtually everything and anything, be it animal or vegetable, and although predominantly a scavenger, it will, like the crow, kill its own prey when the need arises. Chicks of song and game birds present no difficulty, but on rare occasions, a pack of them has been known to kill a young rabbit.

As for an agricultural pest it can be a nightmare. Although it isn't a problem over cereal crops, the time it really causes damage is at baling time. When the bales are wrapped in black plastic, in many areas the farmers need to get these off the fields as quickly as possible because the magpie, and to a lesser extent the crow, will peck holes in the covering thus allowing the elements in to spoil the hay. It's presumed that the bird sees its reflection in the black shiny plastic and attacks it. As it makes a hole in one area, as soon as it catches sight of its reflection in another, it pecks at this. As both birds are very territorial this explanation seems a very valid one. Either way, the magpie, like the crow, is a major pest species that needs to be kept under control.

Location and Behavioural Patterns

Finding magpies is an easy task. Not only are they highly visible birds when moving but also they can initially betray their presence by their distinctive 'chack, chack, chack' alarm call. When caught out in the open or suddenly alarmed the response from the bird is usually a noisy one. However, in wooded areas, they are more likely to slip silently from tree to tree. The magpie is very sharp-eyed and will not stick around long, especially if it suspects even the slightest hint of danger. This, coupled with its preference for sitting high up in trees to survey the surrounding area, makes it almost impossible to sneak up on. In fact the birds have

favoured sitty trees or areas in trees where they can regularly be found watching. If you're patient and know these areas you can hide up in ambush but it's still not the easiest of ways to target this corvid.

Nests are easy to find and are usually returned to year after year. These bulky, domed structures are sometimes taken over in winter by squirrels and a fair kerfuffle can be heard and seen whenever the twain shall meet.

Methods to Use

The two main methods of dealing with magpies are wood-walking and the more effective and dedicated method of baiting-down. Both these techniques will be outlined in full in the relevant chapters, but it's worth noting that as with all hunting methods, prior knowledge of the area to be shot over can pay handsome dividends. The birds will more often than not be active at set times of the day, and being in position at the right time can save hours of fruitless searching or waiting. Birds of a certain area will tend to have localised feeding spots and routes to and from them. Indeed, as the woodpigeon establishes a flight line, more often than not you'll find magpies seem to use the same route as each other. Sometimes birds will follow other birds in five to ten minute intervals. Some naturalists presume they're birds from the same brood but whatever it is, they're definitely moving and searching around in the same areas as a form of connected team. However, as the corvid is a scavenger it can stop off anywhere it sees that may provide a likely source of food, which is one of the reasons that baiting-down is so effective. Like the crow, the magpie is definitely one of the earliest risers of all flying quarry species. They are often active on the shoot a good half hour or more before dawn breaks, starting their scavenging activities, looking for leftovers from other predators from the night before. Also, some believe they're active so early because it gives them the opportunity to search out nests to raid, as sitting female birds or fledglings calling out to males for food are easier to hear at this time. Whichever it is, if targeting these wary adversaries you need to be out on the shoot or even in position if baiting-down at least an hour before sunrise.

The black'n white terror has a varied selection of calls from the familiar chack, chack, chack call to the chattering, cackling call not dissimilar to the sound a box of matches makes when being quickly shaken. Indeed some use the rattling box of matches trick to entice or annoy the bird within range, but as for the bird itself, like any other clever scavenger, they can when they prefer be silent and quite discreet in their movements.

Calibres and Kill-Zones

The calibres .177 and .22 including .20 are suitable for dealing with this crafty corvid, and in most situations, to cleanly dispatch the bird you have two choices of kill-zone – depending on its attitude to your shooting position. If it presents itself side-on then a head shot or just forward of the wing fold will give an instant kill. But like all corvids it rarely stays still and the head shot is a very small kill-zone. Alternatively, a full-on chest shot in the upper chest cavity is my preferred area of pellet placement and deadly effective

Though they don't have an overly strong breastbone, care should still be taken in placing this shot accurately. It's easy to see where the shot should go as you can't fail to see the bird's large black bib extending from head and neck down to end approximately mid-point on the chest area. Directly below, you'll clearly see the bird's strong muscular legs as there's a clear defined line that centres down from the bib. I mention this to illustrate that anything below the bib is a wounding shot, ideally half an inch up into the black of the bib in the chest is straight into the heart and lungs. Another fragile area on the bird is from the back and like other corvids this is a position it often adopts when alighting in an area it isn't too sure of. It puts its back to potential danger, but with its keen eyes watching around and behind. This is so it can fly off in the blink of an eye, or if on the ground hop quickly away in the opposite direction. Little does it know, again like other corvids, that it's offering its weakest spot. A well-placed pellet into the base of the neck, between the shoulder blades to even approximately an inch down its upper back will quite literally break its back and result in a clean kill. This is quite a large kill-zone for such a deceptively small but fragile-framed corvid and a superb kill-zone for any other flying felon.

On the subject of size; the magpie isn't much bigger than a blackbird. Like other feathered predators, it belies its size by fluffing out its plumage and sitting bolt upright.

Rook (*Corvus Frugilegus*)

Few sights or sounds so epitomise the traditional view of the British countryside than the raucous activity that surrounds an established rookery set in a lush woodland setting. High in the treetops, large bulky nests of twigs can at times seem almost to merge into one because of their close proximity, while great black birds circle high above the treetops cawing incessantly to each other. This rural scenario even extends to the old traditional country recipe for the dubious culinary delights of rook pie. There can't be many more birds that have steeped themselves so firmly into our countryside's heritage and lore. Whilst crows and magpies are treated with the disdain they so rightly deserve, the rook seems to have slipped through the cracks to earn the airgun hunter's respect. It's a clever, almost noble-looking bird with purple-black glossy feathers and that characteristic grey white bill. Contrary to popular belief, the bird is actually a tad smaller than the carrion crow, and arguably much less gregarious in nature. Its cawing is also of a higher pitch than the crow and it seems to have a much wider range of calls.



The rook is a noisy but noble looking bird

Habitat

The rook is a bird of the wood – only leaving the sanctity of the rookery to search the fields for food. Deciduous woodland with farmed cereal fields lying on the outskirts makes for a prime rook environment. An extremely social bird, it nests in the colonies known as rookeries. Some can number over a hundred nests, but in each season a lot will be uninhabited, although on record there are some absolutely astronomical examples. One rookery in Scotland was once reputed to be home to nine thousand pairs of birds! Now that's what I call communal accommodation.

Although the rook is extremely sociable, with its own kind, living in such large numbers, and in such close proximity, it still defends the small territory around its own bulky dwelling. In fact, this communal life is so well developed that it has given rise to fanciful stories of 'rook

parliaments'. It was once actually believed that if one bird in the rookery had been, for want of a better phrase, out of order in some way then the others would sit in judgement and dish out appropriate justice.

Although responsible for attacking freshly sown fields when it digs up shoots and seeds, not all the rook's activities are harmful to the farmer's livelihood. Due to its taste for leatherjackets (crane fly larvae) and wireworms, it can serve a very useful purpose, but like all other members of the corvid family it'll pretty much eat anything, and this is the major problem. Unfortunately, like crows, they batter down the stems of growing corn and barley with their wings or simply land and walk forward primarily to get at the grain and seeds, but the flattening damage to the crop left uneaten means it can't be picked up by the combine harvester. Over fields they dig around for worms and larvae and scavenge for the eggs of nesting ground birds. They're also attracted down to freshly-cut grass fields; ploughed crop fields, and areas with an abundance of molehills showing can attract birds on a regular basis.

Why, you ask, have I not mentioned carrion as part of their diet? Well, although it does eat carrion, it isn't as keen on meat as its other close true carnivorous flesh-eating relatives.

Location and Behavioural Patterns

Most deciduous woodland will have a rookery or two; so established woodland especially with tall oak, birch or yew trees is the place to look. Finding a rookery is easy. If the birds don't give themselves away with their non-stop cawing, then sooner or later, walking through a wood scanning the tree tops, you'll spot those big, bulky, untidily built nests that the birds return to year after year. In winter the rookery can be an eerie place with all the blobs of nests dotted above you, and an uncharacteristic silence as the birds are feeding elsewhere. In fact, by midsummer, once the young rooks have left the nests, the birds form into huge flocks and leave. They usually roost in another location but in some parts of the country, as early as January, the birds start to return to the rookeries. At first they tend to use the trees nearby as sitting trees as if getting used to the area again. Then in preparation for breeding they start to repair or rebuild a nest for the season's brood. This can be a clutch of up to five eggs, and are laid so that the fledglings don't all hatch together.

This way, more are likely to be able to go on to survive – unless you're there to knock them from the trees.



The rookery in winter can be an eerie place

Methods to Use

Methods for hunting rooks aren't as simple as those for other corvids, such as baiting-down. You can find very few birds opportunist shooting as you 'wood-walk' but more likely and more traditional amongst the

shooting fraternities of all disciplines, the main method for controlling population numbers is what is known as brancher shooting.

Brancher shooting takes place around the first couple of weeks in May. For some reason, certain country folk like to pin this down to a specific day, that being May 12th. Well, we all have our little foibles, but whatever you term it or date it, brancher shooting is a very short season. To be there at the right time you need to keep a close eye on the rookery so as to take advantage of the young rooks clumsily emerging to hop about near the nest, but, it's widely recognised as the only worthwhile method of curtailing their numbers. Before we deal with that tried and trusted method, I'll explain my previous declaration as to why the rook doesn't fall to the usual corvid curtailing techniques.

Of all the corvids (jay excluded), the rook has the keenest of eyesight, and that's saying something, as all the corvids seem to have bionic 20/20 vision on the worst of days. However, whereas a magpie's curiosity will sometimes get him nailed, the rook will never be so foolish. Also, although you'll regularly see them feeding over fields in summer, autumn and winter you'll often not get within a bazooka's distance of them.

If you're fortunate to get on to land where they haven't been shot at, you could well bag a few before they give the area a wide berth. This can also apply to when the rooks are sitting tight near the rookery early in the year. Again, you'll only have a few chances before they immediately fly up on your approach and not settling at all, unless sitting atop a nest out of sight.

Suffice to say, the rook is a crafty and very challenging adversary for the airgun hunter. However, don't let me mislead you into thinking it has got supernatural powers. It has not. Like any living creature it does have to sleep, so yes, what would we do without the chance of roost shooting? Even then you'll only get the chance of a few shots and only a few sessions before they move on to roost elsewhere in the wood or maybe even a wood in the distance.

In fact, it's worth me relating a couple of behavioural patterns of rooks when at the rookery that makes them so difficult to target even when repairing nests and, indeed, when roosting there.

Firstly, all the birds are seemingly constantly wheeling over the area, never still except for some which will be sitting on the uppermost

branches, as high as possible, and amongst a labyrinth of potential pellet-deflecting twigs. You'll rarely see adult rooks sitting low in the trees or in plain sight. They're far too clever and wary to make that mistake.

When the birds are actually back roosting at the rookery, depending on the season they'll only come back late so the light is all but gone by the time the main body of birds arrive. Also, such is their cleverness and wariness of character that as the birds fly in droves into the rookery, virtually all will land in the top of the single tallest tree giving them the best view of the rookery. Even here they're on their guard, the treetops black with hundreds upon hundreds of rooks. This would be the shooters' only chance of a shot when they're behaving in this manner, as after the birds are satisfied that the area is safe, and as if given an order, they then split up and spread out throughout the rookery to sit out the night in the security of either the nest they're re-building or a handy abandoned one. Within minutes, hundreds of birds can disappear into the bulky structures leaving the rookery as quiet as the grave. Once in the nest, no amount of normal activity on the woodland floor will spook them out until they're ready to rise before dawn to repeat the season's particular routine. This can be to leave the rookery to wander around and feed, or to establish with mates in the mating ritual, and rebuilding and re-establishing their position in the colony high in the trees.

I'm sure you're now beginning to see why shooting the young birds (branchers) in spring is the most practical hunting method. Basically, if you've done your homework you'll know the time and place to employ this tactic. So how do you tackle it?

Brancher Shooting

When the young rooks first leave the nest, taking their first clumsy steps onto the branches, as the name implies they hang around the nest on the surrounding branches. That's why they get the nickname of 'branchers', and while in this fairly vulnerable position, they're sitting ducks for the shooter below. Although we have a yardstick, the brancher season can actually start sometimes as early as the end of April into mid-May, depending on which part of the country you live in and how the year's weather conditions have affected the colony during the early part of spring.

The only reliable method to catch the branchers napping, as it were, is to keep a regular watch on the rookery at this crucial time. Only then will you be ready for the young, inexperienced birds' emergence. Don't get the impression that's it's overly easy though, as the shots are often very challenging. After shooting you'll have a crick in your back and a pain in the neck from continually looking upwards, but done correctly, brancher shooting is by far the only effective method of keeping the rooks' numbers in check.

Though some might scoff – I recommend that you wear full camo with gloves and facemask. Anything that helps you blend in below is a useful aid and don't go crashing about in the undergrowth beneath the rookery as you shift shooting position. It will keep the birds twitchy and have adults less likely to settle back. They'll constantly be calling an 'intruder alert' which the young rooks take heed of.

Shooting upwards at awkward angles is difficult at the best of times, but couple this with the fact that the type of trees the rook inhabits means the twigs are plentiful, and starting to bud and sprouting leaves makes it even harder. There's plenty of opportunity for a pellet to get deflected off a branch or twig on its way to the target, so always be aware of this and place your shot carefully. A recoilless multi-shot PCP air rifle will be a godsend as you can rest the rifle on the side of a tree trunk to steady your aim and there is no need to keep loading after each and every shot. Choose a rifle you can shoulder easily and one that won't be too straining to lift up. Also, as you begin shooting, the adults will noisily take up, with the branchers scrabbling to higher branches or clumsily hopping back into the nest. There often can be relatively long periods when you can't find a target, so rest by sitting down for a while until things settle, which they eventually will. Even take shots from this seated position; it's much easier on the back muscles and a steadier hold and aim can often be achieved

A tried and time-tested method, but it's certainly not as easy as you might think.

Calibres and Kill-Zones

As with the crow, it's often said that the prime kill-zone is the head. This is usually credited to the fact the bird has a strong breastbone (keel)

easily capable of deflecting a pellet, so head shots should be the name of the brancher and rook shooting game. After much hunting experience this is yet another myth that I feel can be dispelled. Whilst the crow and rook have fearsome, solid, heavy-duty beaks for smashing young fledglings and digging around in the ground their skeletal make-up is nowhere near as robust as the head and beak. The skull of a corvid is reinforced and is certainly thick to accommodate the proportionately large heavy bill, but the chest bone is only as strong as a bird of a similar size such as the woodpigeon. Its ribs being just as prone to damage, so heart and lung shots can be taken if the bird presents itself at the correct angle. Obviously a pellet will deflect off a heavy bone such as the central chest bone or keel. Look under those heavy wings of the corvid and there's a lot of flimsy unprotected flesh. Place a pellet of any calibre up into the chest area of these birds and it will result in a clean kill so don't be fooled into thinking you only need try for a head shot.

So whilst the rook is a quarry species to have on your list for spring, and the chance to shoot it as a brancher short, you will encounter adults atop trees.

While we're now at the end of Quarry Files, I'll just reiterate that although an FAC rifle shouldn't ever be thought of as a tool for getting longer range, what it can do is give you less to worry over with awkward angle shots and trajectory allowances. When the birds are high, and you're taking these shots then this is certainly a case where the hunter shooting an FAC-rated air rifle could get the chance at shots which hunters using a 12ft lb air rifle couldn't dream of attempting. Look to the same kill-zone areas mentioned for the woodpigeon in relation to using a hi-power air rifle.

Other Species

Before the Quarry File is fully closed, I feel I should briefly take a look at what other species are legally classed as vermin and still deemed suitable for air rifle. The reason I feel they should be dealt with in this way is due to the fact that you may encounter them as you go about your shoot and might be asked to deal with them when and where appropriate. Although there's a specific section at the end of the book detailing the

law pertaining to airgun use as it currently stands, it's still worth a few cautionary words to the wise on the subject, in relation to your shooting and the land you hunt over.

Responsible Attitudes

Firstly, remember that we are only allowed to hunt any species because permission is granted to us by the powers that be; in other words, it can just as easily be taken away from us. As a responsible airgun hunter this should always be at the forefront of your mind and while out in the field we should all act accordingly. Just one stupid reported incident or action could have serious repercussions, not only for the perpetrator, but also for the whole of the sport.

It's easy to fall foul of the law inadvertently while out hunting. For instance, you can get so engrossed in stalking that you stray 'out of bounds', as it were.

Always – repeat always – keep aware of the possibility of others in your vicinity. Whilst you may know the boundaries of your shoot, ramblers and the dreaded inconsiderate dog walker can have the nasty habit of appearing as if from nowhere. I'm sure others have experienced this. A pellet will travel with sufficient energy in flight to inflict possible serious injury for up to 200 yards or more, and that's from a 12ft lb air rifle. Before you shoot at anything, carefully consider where a missed shot might go. If shooting around buildings, that's a usual worry, but in the open fields are you sure the hedge line is thick enough to stop the shot, or is it so sparse that a pellet can fly straight through?

Know the footpaths and rights of way across the land you shoot. Although some may hardly, if ever, be used, there's always the possibility that they will at some time attract the walker. With the 'public right of way' law, even I'm surprised at areas being opened up that I presumed closed indefinitely to unauthorised persons. In that respect, even if shooting in your allotted area you can still technically commit an offence if you are shooting within 50 feet of a public footpath, roadway, bridlepath etc, and there is the current mentality of the non-shooting public to think that a man with a gun is up to no good, especially if clad head to foot in camo!

One of the major reasons that DPM camo first fell out of favour was due to incidents giving this attire and 'look' a bad public image. In turn, this tarnished those who were seen wearing it, but in part, we can be thankful that this helped to inspire the wider acceptance of the new-era, non-aggressive camo patterns most airgun hunters now use.

On the subject of the general public, and the fact that they might just appear on your shoot, my own personal code is a simple one: If I can see another person, in any direction from my shooting position, I don't shoot. This applies to anybody who might not know who I am, what I'm up to and why. In fact, I'll lower the gun and wait for them to pass, then phone the farmer to enquire who is on that part of the land. It could be a disoriented walker but also maybe even a poacher.

Fur and Feather

Of the eleven quarry species fully detailed in the previous pages, you can of course add a few other birds and animals to this list depending on time of year (season) and status of both yourself and the situation you find yourself operating under.

Vermin such as the mustelids, including weasels, stoats and the mink, are also animals that can be dealt with by air rifle hunters, but, despite the times, wherein non-thinking, animal rights activists free mink from farms, they're still generally not a common sight. However, when they do emerge over an area it can be very localised and their presence felt very suddenly. Usually, a well thought out and deployed trapping campaign sorts these vicious destructors, but if caught in live catch traps, the air rifle is the tool for dispatching them humanely. To hunt them is very, very challenging and more often than not will prove a pointless exercise. I have shot mink, but in over 20 years probably not enough to make a decent hat!



Mink are best left to be managed by a dedicated trapping campaign

The airgun hunter is also allowed to shoot the hare which I've made brief mention of in the chapter on Changing Seasons. Even so, it's a point of contention if the 12ft lb air rifle is up to the job in hand. Personally, it's one to consider with an FAC rifle, but largely best left to the rimfire shooters and shotgunners. In fact the hare isn't as common as it once was in many areas, so the hunter will have to use his discretion, but consider this; anatomically the skull of a hare is much stronger and thicker in bone than a rabbit's. Not only that, but the chest area is also generally covered in a thickish layer of fat and of course muscle; body shots therefore being out of the question to responsible airgun hunters.

Waterfowl

Most hunters don't realise you're also allowed to shoot both moorhen and coot. Many might not consider these waterfowl suitable airgun quarry, but they are a legitimate species, when in season. These closely-related water birds come under the Game Laws which means the close season is from February 1st to August 31st. This allows them, like game

birds, to nest and breed unhindered. This 'royal' pardon is strange as they were originally shot in truckloads by river keepers as vermin, due to the damage they do to nesting ducks. The coot will rob ducks' nests and even kill the young. Some say it's aggressiveness, other say it's because they are competing in the same territory with the more timid duck, and in comparison, though slightly smaller than an average mallard duck, coots are very aggressive and territorial. Just watch the birds in the breeding season – 'mad as a coot' – no surprise why that saying came about! Interestingly, of these two birds, the moorhen does venture into the fields and meadows to feed in winter, especially over waterlogged areas. You'll often see them in moderately-sized groups of four or five, scavenging over muddy ground. This is when one might just well present you with an opportunist shot; head- or full-on breast shots being suitable for both species.

I'm reliably informed that coots and moorhen can be quite tasty, and the dish is still a favourite in parts of the Norfolk Fens. So maybe this is why they originally became classed as game? If this has sparked your interest in these birds, bear in mind that they are mainly only ever found on or near water. If you do have a duck pond or some such waterway running through your shoot, then do take precautions when shooting around water. Specifically, be aware of the risk of ricochet from the water's surface.



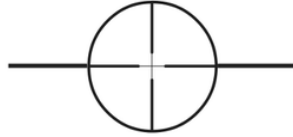
In some parts of the country waterfowl such as the coot is considered a tasty dish. And when in season lawful quarry for the airgun hunter

Real Game

While the law doesn't stipulate that game birds such as partridge, pheasant and grouse or some species of duck can only be shot with the shotgun, many feel the airgun hunter partaking in the shoot is little more than a poacher. The reason for the 'unsporting' label is certainly due to the fact that these game birds especially, aren't very clever while on the ground so offer little sporting challenge as a static shot. To take them on the wing with shotgun, flushed up by beaters and dogs, is the way to take on these birds as it does give them a sporting chance. If your shooting ground has wild pheasant, then ask the farmer, landowner or gamekeeper if you can take the odd one for the pot should you encounter it. This sensible attitude to the situation, shooting etiquette and commonsense will be duly noted and you'll probably be allowed to do so. A pheasant is a big, stocky bird and rather than get myself embroiled in controversy I'd

say head shot only at medium range, but do ensure that you're not upsetting any shooting syndicate-linked apple carts.

As I've said way back in an earlier chapter, finding a shoot is the hardest hunting of all, and the easiest one to lose! If ever in the slightest doubt – don't risk it.



12

Hunting Techniques

The tactics and techniques you can employ when hunting with an air rifle are pretty much the same as they have been for years. However, as air rifles have become more accurate, and pre-charged pneumatics much more affordable certain hunting methods can be used that weren't viable in the past. Also let's thank the gods for the sound moderator (silencer) and of course multi-shot air rifles.

Even if you're a traditionalist, once you've been hunting a while you'll soon realise the benefits a 'multi' affords. Not only those extra-quick, back-up shots, but also the fact that you don't need to fiddle around to load a pellet for each shot. In that sense, and definitely from a personal perspective, I'm achieving results in my hunting I'd have never thought possible. But back to the matter in hand and techniques you can use to bag quarry.

Whilst there are many variants, no matter which method you employ it will fall into the major classifications of either active or sedentary. Active: which obviously means actively pursuing quarry, such as opportunist shooting. Wood-walking or stalking: to the sit-and-wait, sedentary methods such as ambushing or hide shooting. Some techniques cross into others, such as baiting-down corvids while using a decoy placed near the bait to lull the birds into a false sense of security, or decoying woodpigeon to a shooting position and then shooting them from a hide shooting position. As you can see, the possibilities are wide ranging. So let's take a look at the basic tactics and the main quarry species they can be used for. Firstly, those that require a bit of legwork.

Opportunist Shooting

By far the most suitable way to acquire more knowledge of your shooting ground and probably give you the most chances of targets is a method known as opportunist shooting. This can range from something as basic as a walk around the farmyard and outbuildings, right up to the outermost fields and hedge lines of the land you're legally allowed to shoot over. Contrary to certain misguided belief, it's not just a case of wandering aimlessly around your shoot in the hope that you'll get the chance to take a pot-shot at whatever presents itself. Rather it's about reading the land, watching, listening and taking advantage of any opportunities that may present themselves. I realise that many readers will probably want to get straight into sneaking up (stalking) on feeding rabbits they see out in the fields, but to get within effective range takes fieldcraft and much of what is outlined in this section will be relevant to those scenarios.

As outlined in the chapter on Observation, when out 'oppo shooting' always be aware of what's going on around you. If you see the woodies landing in the next or a few fields away, plan your route accordingly, and using whatever available cover there is, make your way over there. Don't worry, the specific methods of using cover to mask an approach are outlined further in this section.

If bunnies are appearing out of the hedge line adjacent to the one you're shooting along – carefully stalk over to that area. Incidentally, I think it worth stressing that the word 'stalk' refers to walking with slow, careful deliberation and upright, just as it does in the half-stooped position. You'll come to realise which posture suits the situation.



Tread carefully, quietly and slowly when opportunist shooting and stalking

So back to the theme – getting to quarry. This will mean plotting a route, often not a direct one, and using any and all natural cover as an aid, along with your camo clothing for concealment. You can see how hunting methods can cross over; one moment slowly and attentively adopting the role of an opportunist hunter, and the next, purposely moving towards a target. Needless to say, this is stalking at its most basic, so keep low and always try to prevent yourself showing as a silhouette. Approach from downwind and move slowly and quietly. All are basic requisites of good fieldcraft.

There are times when you need to go out with a specific plan, but sometimes even the best laid plans can go badly wrong. This is when the hunter who notices and takes advantage of the opportunities that arise can score over even the most careful tactician. For example, if you've planned to lie up in ambush near a feeding area, or woodie or corvid sitty tree, the prevailing weather conditions could well dictate whether you have a productive or non-productive foray. Therefore, always be

adaptable. If you think you'll be wasting your time waiting around for something that isn't going to show then it's definitely time to become an opportunist hunter.

Doing this has resulted in some of my most challenging and memorable hunting forays. One moment you might come across a twitchy rabbit that takes all your fieldcraft skills to stalk up on, or you can be carefully walking through woods and spot a cocky squirrel sitting well within range on a branch thinking it's untouchable until you drop it with a well-aimed shot.

Alternatively, on a walk around the farmyard, just what might be sunning itself on the far side of a barn roof or outbuildings, and what might be mingling in or hanging around near domestic fowl looking for a quick feed – get the picture?

You may think it strange that Hunting Techniques has seemingly dived in at the very deep end, as this method of hunting tests your shooting skills and reflexes to the full, but as I said earlier, this method employs fieldcraft techniques that apply across the board. One such is to never let your concentration wander. It's uncanny that just when you stop for a breather and turn your attention to wiping a blade of grass or dirt off the rifle barrel, a rabbit bolts out from well within range or a woodie leaves the trees nearby. If you'd taken more care, been more attentive, maybe you'd have seen them, who knows? Maybe an opportunist shot was on the cards. You'll always get caught out like this, but just pay more attention to the job in hand and you'll start to find you're not caught out as often.

Also, and this is something that is dealt with in more detail later, there's the need to avoid direct eye-to-eye contact with your quarry until ready to shoot, and then you should be looking through the scope, crosshairs locked on the position, to send a pellet into the kill-zone. The reason for this is the animals' uncanny ability to sense danger. There will be times when a magpie will let you walk past, usually when you're out walking without a rifle, but still keep an eye on you and it can let you stray unusually close. Now slowly raise your hands as if pointing a gun, and the same bird will be away. This is the animal sensing and reacting to what it has come to learn, by inheritance of genes from previous generations, as a threatening gesture.

Threatening postures will be outlined further but the one that can give you away, especially with wary rabbits and corvids is direct eye contact. They know that you looking directly at them is a prelude to potential danger. Add a threatening posture of the body – stopping with arms rising – and that's one legally deemed vermin species that will live to cause problems another day.

The next bit of advice may sound odd, but in certain cases it does work. If you catch sight of a potential target out of the corner of your eye, don't whip your body and head around to look but try to act as if you haven't noticed it. Still be ready, and when you get within range to take a shot, try to walk up to the quarry without overly changing direction. Have the rifle pointed down but in your shoulder, so you can position yourself to take the shot. Squirrels are particularly susceptible to this technique. Even though most hunters, like me, will try to adopt a more stable kneeling, sitting or prone position, when opportunist shooting, a high proportion of shots invariably need to be taken while standing. There's a reason to be well-practised in all shooting stances and holds before targeting live quarry. Another factor to take into consideration with this form of hunting is not only quick target acquisition, but also recognition. From certain angles the sparrowhawk can look uncannily like a wood pigeon; the green woodpecker can in silhouette be mistaken for a jackdaw, jay or even juvenile crow. Books on British birds are commonplace so invest in one. It'll pay you back in terms of the knowledge you will learn from it, even though only a few it contains are legally classed as vermin. Incorporate knowledge such as this with what you observe in the countryside yourself and it will help to make you a better countryman, let alone hunter!

Remember also the importance I've placed on movement in a previous chapter being the hunter's biggest giveaway. So move slowly, stopping at regular intervals, but only stopping if you're sure that there are no potential targets near the position you decide on for this studied position. Look up ahead; look around and even back along the track or hedge line you've moved along. The key watchwords are concentration and observation. Even if walking over ground that in your experience hasn't produced much during other hunting forays, don't discount it by rushing through. With opportunist hunting you just never know. This time

there could well be quarry everywhere, and that's part of the thrill and challenge. You don't know what you could happen across next.

For this form of shooting, like many other experienced airgun hunters, I favour a carbine-sized air rifle. The reason is obvious; its compact dimensions and light weight make it ideal for carrying around and it is fast handling. I also now choose to use a PCP multi-shot as it'll give me the opportunity to access quick back-up shots and if quarry has stuck around longer than is wise, sometimes it can be 'two down' in double-quick time.

It goes without saying that full camo wear is the order of the day. Also, holding the rifle at all times is preferable, so unless I'm 'yomping' any great distance to a specific area, I prefer not to have a sling fitted, or remove it. Thank heavens for QD sling swivels.

For scope choice you need an optic that allows you to acquire the target quickly when spotted. This is definitely when you'll appreciate a wide-angle scope. There are a few very good, compact optics on the market, but a general specification scope is often just as handy wound down on a lower magnification setting for optimum width of view. Then, if you require, you can wind up the magnification for a more studied, longer-range shot if the situation allows. Also, let's not forget the fact that you'll often walk into a dull area or be operating under a canopy where the light is low. As most optics have good coated lenses I'm not saying opt for a specialised low light scope, but one with good light gathering capabilities should always be at the forefront of your selection list. Although you'll often take quick 'select and fire' shots, never take chance shots. If there's the slightest possibility that the quarry may be wounded and get away, be disciplined and leave it until another day.

As I'm sure you now realise, Opportunist Shooting requires a high level of fieldcraft, shooting skill and, of course, experience brought on only by actively practising the method. Importantly, address your body language; the half-stooped slow walk is exactly the right way to move once you've sighted a target such as a feeding rabbit which, of course, you intend to get closer to. However, moving across any ground in such a way will be sensed and seen by other quarry species as threatening. Anything that spots you moving along a hedge line or through undergrowth instinctively knows you are a predator switched on to

hunting mode. This might sound bizarre but consider this; animals such as rabbits, and to a lesser extent birds, will quite happily carry on feeding or hold position as a deer or even a cow ambles past them. The reason being, the deer or cow will not only be familiar to the animal but has always behaved in an unthreatening manner, so this reaction and acceptance is learned behaviour. Not that I'm suggesting you dress up as a cow or deer but as you should be fully camo'd up, walk with an unthreatening posture as you try to almost 'drift' over the ground. Stooped with rifle half at the ready isn't always the way. I know I've used a few military references in this book already, but the army adopt a walk in sensitive areas that allows them to appear unthreatening, but ready to respond should the situation dictate. That is, rifle across the chest, muzzle pointed slightly downwards held in half-folded arms, walking slowly, while their eyes study everything around and above them. Adopt this alert but seemingly relaxed posture and you're halfway to blending in with your surroundings.

Pay particular attention to the ground you walk over. This obviously also applies to stalking when you've spotted a target you want to get within range. Stepping on a twig can make a sharp, quarry-alerting 'crack'. Noise can be created if stepping on gravel, loose stones, pieces of tree bark, dry leaves ... the list is endless. Virtually every writer on hunting has commented on how the shooter should place his feet when walking. The basics are: move slowly, and step forward, first placing the ball of the foot down on the ground, then carefully roll the weight forward onto the sole of the foot, then step forward again and repeat the procedure. You need to feel the ground beneath your feet as you look at the ground you're walking over. This is all fine in theory, but only experience and practice will enable you to walk as quietly as possible over a variety of terrain.

The footwear you choose also makes some difference. Although, as a rule of thumb, a soft-soled, trainer-style shoe can be useful for stalking in summer, in the winter every hunter should wear a pair of suitably heavier-duty field boots. Most offer a good compromise of support, grip and flexibility. Again, you'll discover which suit you as you progress as a hunter. By and large, following the basics will help you to adopt the style of walking that best suits your build and agility. Firstly you walk an area

with your eyes. Look at the five yards forward of your position, making mental note of what lies on the ground, and the consistency of the terrain, and then slowly use the ball, sole, forward rolling movement. If you feel anything on the ground underfoot about to slip or snap, stop and look at what it is. Carefully retract that foot and place it suitably in another place and progress on your way looking ahead, around and in many cases above for any sign of quarry. Again, remember you still need to stop at regular intervals again to inspect the area that you're about to walk over or around. While doing so, take this opportunity to check around your position for any signs of life. It may seem nigh on impossible but this slow, drifting walk will eventually become second nature.

Walking over soft, long, damp grass is much easier than any woodland floor. That is until the frosts have the ground scrunch with a sound as if you're walking on cornflakes. You'll soon come to realise that stalking in the frost is a definite no-no. My experience of walking over frost-ravaged fields at night, lamping foxes with a fullbore, has made me realise that trying to get within range with an air rifle for any suitable quarry is nigh on impossible. Know when it's impractical to walk up on quarry. This is the time to use other methods such as hide shooting, using decoys, and/or ambush techniques with bait for corvids. Again, even though we've come away from the main thread, the fact that hunting techniques often complement each other or blend well together is an all too obvious one.

Back to 'hoofing it' around the shoot actively searching out quarry. Now, as the way you move around your shoot on foot is of such high importance so is the use of cover, and the rules apply as much to opportunist shooting as they do to stalking. I detail movement because this is a very important part of fieldcraft and in actuality, stalking is by definition different for the deer stalker, as it is the airgun hunter trying to stalk closer to a rabbit to take an effective shot. It's only the last but very stressful distance, whether it be as many as 60 or only ten yards to get to the final shooting position, usually crawling on your belly on the final approach until you are within range.

I'll further detail how to think about planning your route and how to use hedgerows, small copses or tree lines, using the cover these natural features provide. I've nicknamed this technique 'hedge-hopping', which

is simply slowly stalking or walking along hedges, walls or any other perimeter that will offer cover, and keeping an eye out for quarry in front of you, that you may walk up on, or even come across on the other side of the cover you are using. Whenever possible, always walk away from the sun, into the wind and keep in the shaded areas, and that applies wherever you're moving around looking for quarry. When stalking around hedgerows, do so in an anti-clockwise direction (clockwise if left-handed) as this allows you to have the rifle mounted in the shoulder to be ready for a shot should you spy an opportunity as you round a corner. This is opportunist shooting in its most applied and dedicated form.

Applied Opportunism

At certain times of year, an area that could have been relied upon to hold a few likely targets may suddenly seem to become devoid of all legitimate quarry species. This is dependent on how much disturbance it's been subjected to, either by too much shooting pressure or by other factors such as an increase in natural predators; foxes, stoats, weasels, feral cats, birds of prey etc. Waiting around for quarry to turn up in this sort of situation can be fruitless and one occasion when ambushing techniques are nigh on useless in these areas, but this will be dealt with in the relevant section. So as I'm sure you can realise, this is when a hedge-hopping, stalking technique can come into its own, as you are actively seeking out a shot.

Creatures of the outdoors survive on their wits, so they will soon start to avoid areas you've had a field day in only a few days before. This is very noticeable amongst rabbit that have been over-lamped at traditional times of year, and yes, lamping is another technique that will be covered in detail later, so back to the matter of opportunist shooting. Due to disturbance, they can become much more wary, becoming reluctant to stray too far from their burrows or cover. This is especially the case if you share your shoot with other airgun hunters, rimfire shooters and/or shotgunners. In the main you'll find that at first light 'twitchy' rabbits will remain close to home. More often than not these will be sited under hedgerows or shrubbery or right inside bramble thickets – favourite haunts for rabbits in many parts of the country. If rabbits are your main

chosen quarry species, look for sandbanks or soft disturbed soil leading up to these hedgerows or shrubbery. Similarly, the well-used runs through the grass; these flattened grass pathways lead out to feeding areas and the regularity of the quarry using these routes can often be their downfall, not only because you can ambush them as they come and go, but also they're clear indications that there may well be a hidden burrow system in the heart of the bramble bushes, or whatever dense cover the runs lead in and out of.

The following information could have been put in the chapter on Observation, but opportunist shooting is as much about observing and learning from what you see as it is about getting more quarry in the bag. In that respect, be advised that around an active warren, rabbits can be found feeding on the grass near the cover of hedges and bushes at most times of the year. This is because it will probably be more lush and nutritious, not being as exposed to the elements and the feet of grazing livestock as much as the grass further out in the fields. Plus, and perhaps most importantly, they also feel safer near their homes.

Note that the grass can be quite long near the hedgerows, so when taking a snap shot in this opportunist way, although I've advised where possible to adopt the kneeling position for extra stability, the downward angle of a standing shot may sometimes be the only and optimum option. The rabbit's head may be all that's visible when it stands up to peek around. In that case, the only sure route for an unobscured flight path for the pellet to the target is when the shot is taken from the standing position. In the section on stalking, we'll further deal with 'eyes from above', feathered quarry that may spot you from the trees. Suffice to say that woodies and magpies can be an awful nuisance, even though legitimate and challenging targets, if your attention is always on the ground they will give you away when they spot you approach. Woodies are canny creatures and almost invisible amongst the branches, with the annoying habit of suddenly taking off, wings clapping, alerting everything in the vicinity as to your presence. So by and large, if opportunist stalking around hedges for rabbits, and I know the woodies have taken a liking to a particular area of hedgerow or copse, I'll usually steer well clear. I know this may sound contradictory, as you are supposed to be opportunist shooting and looking for any quarry, but

unless working through a wooded area, I'll keep away unless I've decided to lay-up in a pre-dawn ambush for them. The reason being, it's very difficult to sneak up on birds unless you've decided to attempt the seemingly impossible. Further in this section there are a few tips to help you assess the worth of targeting a bird spotted while opportunist shooting in the woods. So if the intruder alarm goes off, bang go your chances of coming across land-bound and ground-feeding quarry.



Rabbit on the alert, sitting bolt upright, ears pricked up

However, by slowly and stealthily making your way along or around the perimeter of hedgerows and bushes, it's a fair bet you'll find a bunny or two, and when I say 'near', I really do mean as close as possible. Once again, a word on the shooting position: If a rabbit is spotted close up under the hedge it's likely that shooting alongside will be deflected by a straggling branch as much as a tall heavy piece of undergrowth. Here,

depending on terrain, you have the option of lowering yourself to the floor to take a shot under the canopy of the hedge cover that can often be very bare. The rabbit could just be sitting outside its warren watching or even dozing. Worst-case scenario is, the cover is such that you need to move out from the cover you've walked along to take a shot inward to the rabbit's position. This is fraught with variables. Firstly, in no way can you step out. You need to make yourself as low as possible and move slowly, usually crawling flat to the ground on your belly, moving sideways out into the field. It may only be a few yards, maybe even a few feet, but the rabbit will notice any movement as it will more likely be side-on to your original position. Once far enough out, you then still have to contend with ensuring that the pellet has a clear path to the target. The words 'challenging' and 'why do we put ourselves through it' come to mind, but when you get it right and the end result is a bunny down with hardly a twitch of a back leg, then it's worth every drop of sweat on your beaded brow.

A word here on using areas of low light to your advantage, or you could say, 'lurking in the shadows'. Every natural predator knows the importance of staying in the shaded areas, be it a lion in the African grasslands or a fox scouring the English hedgerows. There's also the use of shadow in the woods, which we'll come to later. So in respect of using the shadows of the hedges and low foliage, notice which side of the hedge the sun casts the shadow, and stalk up this area. It may well be that the rabbit is sunning or feeding on the other side, but as you'll soon appreciate, you'll stand a better chance coming up in these darker areas.

Typical hedgerows that suit this technique have to afford you enough cover (be sufficiently thick and dense in foliage or branches) to prevent your silhouette being spotted by quarry feeding further out in the field. Again, we are already coming to a juncture where, as I mentioned in the introduction to this section, hunting techniques can often merge or be used together for a successful outcome. Incidentally, this cover-hugging technique works well when stalking/walking slowly along old dry stone walls overgrown with ivy or other creeping cover plants. Even plain dry stone walling can be used to conceal your silhouette, providing at these areas you stay low. While opportunist shooting in this way there are many times you need to move low and slow. Breaks and gaps in badly

maintained walling offer the chance to scour the field on the other side. If there's no quarry on your side of the cover, periodically take a peek over the other side to see if there's anything around in the field adjacent. This must be done very slowly, your eyes leading the way, with only the slightest amount of your head showing above to allow you to look over. This way, if you spot quarry, you can watch its demeanour as you bring the rifle over to sight-in on the kill-zone. If the quarry begins to look twitchy, freeze, and as soon as it relaxes, leave it at least a minute before resuming bringing the rifle into position. Rarely, you might just surprise a group of feeding woodpigeon. Magpies and crows will more likely to be off and away at the first glimpse of your eye, even the top of your head, but pigeon especially, and, of course, rabbits and squirrels can often get totally lost in the urge to feed and the wall allows a nice, steady rest to shoot over. In fact, when and wherever possible, take the opportunity to look around and scour both sides of the cover you're using. Stopping at frequent intervals to take stock of the situation is of great importance if you are to reap dividends from such an applied approach to this method. Ideally, you are striving to spot quarry before it has chance to spot you.

Unfortunately, when you do encounter quarry it often has noticed something amiss, and in many cases it most likely is aware of your presence. I can't stress this highly enough but movement is the hunter's Achilles' heel. If you sight quarry and it has also seen you then all you can do is completely freeze. I know I'm repeating myself but patience is of the essence in this situation. It can be infuriating, almost like a battle of wits, who will break first, but never be tempted to carry on sighting in or moving when the target is so tuned in to your position. At this stage it probably isn't recognising you as danger, but is certainly realising that you're something to keep an eye on. All you can do is remain totally motionless, avoiding direct eye contact, hoping that the quarry will soon relax and resume whatever activity it was engaged in before being attracted by your seen, or sensed, presence.

If you have a shoot that includes unmanaged hedgerows which have had the opportunity to grow to a decent height, these can be a nightmare to stalk along. Woodpigeon can be uncannily invisible even in sparse foliage. If you do spot a bird dozing, sleeping off a good feed, a rare

opportunist shot this is indeed, so in this situation, slowly raise the rifle, assess range by eye then take the shot.

I'm sure you're now thinking that for this form of hunting you not only need eyes in the back of your head but the top as well. If a bird does suddenly strike out and you are close to hedge cover, then keep still. Quarry around that hasn't seen you and is near cover itself will possibly hold position or only nip into the very edge of cover. It won't necessarily disappear for the day. This watch-and-wait tactic has paid off for me many times and it may well seem fruitless to spend any amount of time in this position but surprisingly, if the area isn't usually shot over, quarry can be surprisingly tolerant. You'll discover in the Stalking section that quarry is rarely as tolerant when out feeding away from cover.

Natural breaks in the hedgerow and man-made passes, such as gates, should be approached with particular care, as these give the hunter the opportunity to take a studied look into the adjacent field. More often than not, rabbits also use these areas to cross between fields, so they are also areas to consider as an ambush point. In these breaks in cover, again look for rabbit runs and beats (narrow pathways with flattened or bald patches in the grass) going out into the field. These will usually cross the hedge line close to the hedge itself or at the base of gateposts and either side of broken dry stone walling. As for those strange rabbit runs that disappear at the base of a wall – no, the rabbit hasn't walked or maybe I should say 'hopped' back on itself, it's probably gone over the wall. Until you see it you probably won't believe it, but rabbits are good climbers and will when necessary go over such an obstacle. They'll even swim; something that has surprised many countrymen who've seen the phenomenon. Then again, it's usually when being chased they'll do this and not a regular route they'd prefer to take. So, in respect of opportunist shooting for the land-borne quarry it's very much a case of expect the unexpected. The prize you seek could be just at the other end of the hedge you're walking along. Tread carefully; walk quietly, and keep your wits about you at all times.

All scenarios mentioned have lent more to shooting around cover and along the hedgerows that form borders to fields - now to opportunist shooting in the woods.

Wood-Walking

It's hard to categorise some methods as they're a mixture of elements taken from the others. One such is wood-walking which can be construed as a form of stalking. This is used when opportunist shooting squirrels, magpies, woodpigeon etc., as they go about their routine in the woods. Also, don't neglect the perimeter (sides) of the wood. Here you can find a variety of quarry from rabbits to woodies at the edge of fields, to corvids in the tops of the bordering trees.

Again, this is a very challenging form of shooting that needs stealth, keen eyesight and good marksmanship. It is best carried out in the months between and including October and March because the trees have less foliage for quarry to hide in, making spotting much easier. If you're looking for squirrels at this time of year, a walk through an area will usually send a few squirrels scampering back up into the trees. A wood-walk can be described as an alert but leisurely stroll, slowly walking through the woods and stopping at regular intervals, keeping eyes and ears open to the sights and sounds around you. Often, all you'll see is the flick of a silvery-grey tail, enough to give away the squirrel's presence. At others, dead branches can mysteriously fall from the trees on windless days, or you'll hear scuffling sounds coming from the forest floor which could be a squirrel foraging amongst leaf litter. Soft-soled shoes are the norm if it's not too muddy, and full camo wear including face veil and gloves is a must.

Once a squirrel has been sighted, you can be 99.9% certain it has spotted you no matter how well camo'd you are. As you freeze in position, the camo creates the effect of blending you back into the wood giving the squirrel a false sense of security as it will be unsure what to make of what it thinks it has seen. Either way, it will have seen you and will react in one of two ways. It will either stop perfectly still or scamper up a tree to a position where it thinks it's safe to observe your intrusion. If you have stopped still at this point, you're in with a chance of a shot. Continuing towards the squirrel as it watches you will see it disappear higher up or into heavier foliage if available, or even into a hole, crevice, small hollow – anywhere it can to give it cover from you. In squirrel

shooting, patience is a virtue as eventually, with you keeping quiet and motionless, it will carry on feeding. The squirrel's habit of freezing is usually its downfall, as if he's within range you should slowly raise your rifle, aim and have dispatched the tree rat. Often they scamper around the tree to put it between you and itself. Sometimes it will scurry up the tree only a few feet, then poke its head around again to check if you're still there. This curiosity can also be its downfall, and is possibly the reason that they can respond to special calls.

Here a quick word on quarry calls: If you can't spot any squirrels, or one has gone from view, try one as it might fire the animal's inquisitiveness to the point that it shows itself. These calls, when used correctly, emit barks and chatters similar to the animals. I don't particularly think you're talking 'squirrel speak' but it does seem to interest the rodents enough for them to take a closer look.

An old trick often recommended is to drape your coat over a small bush, and then walk around the other side to confuse it, but in practice, this is utter 'BS' as the squirrel isn't completely stupid. Anyway, who wants to take take their jacket on and off every time a squirrel is spotted? This is when shooting in pairs is beneficial and is one of the few times I enjoy the company of another shooter.



The correct way to hold the rifle as you belly crawl into final position to get within range of the target

When stalking the woods, even in autumn, keep the sun behind your shooting position so you're not squinting when aiming at targets. There's no need to worry over it casting your silhouette forward as your quarry is likely to be above you. Stop at regular intervals to scan the trees, and ground, ahead. In fact, when walking the woods it's worth keeping an eye on the woodland floor for spoor (tracks) in the woodland loam. Also, gnawed fir cones or scratchings may indicate that the area is well inhabited by the 'grey ones'. Looking aloft as you walk through the woods, you'll possibly find the squirrel's bulky home – the drey, not

dissimilar to a magpie's nest but smaller. In fact, it's not uncommon for squirrels to take over old magpie dwellings. If shooting in pairs, one can poke the drey using lofting poles, there's even an attachment unimaginatively called a drey attachment to put onto the end of the poles instead of the wire arm used for deeks. The technique is a simple one; assemble the sections of the lofting poles together until you've got enough height to reach the drey, then knock the drey or poke the pole right into it. Incidentally, if there is any breeze or even if there isn't, the guy using the poles should stand away from the tree so the dead leaves and debris that knocking the drey will create isn't continually falling into his eyes. The shooter then stands ready in preparation of a shot when the tree rat emerges. They'll sometimes leave the drey very lazily, or they'll come rocketing out. Sometimes they'll stop within a few yards, in plain view, trying to suss out what has caused the disturbance. This is the time to take the shot as they'll soon head straight for the treetops clinging to the thinnest of branches or disappearing far out of view. Just a few important pointers on drey knocking; Ensure that there are no overhead power lines. It only takes a brush with one of these and your hunting days are over. Also keep a check on the ferrules where the poles join together. Make sure the spring-loaded ball catch (if fitted) is strong as losing a lofting pole amongst the branches might sound unfeasible but it's easily done. Although I've detailed this technique for reasons of thoroughness, by and large I leave this for the shotgunner.

Now, a major problem facing the wood-walker is sound on moving through the wood. Dry leaves are impossible to walk over without making a noise, but that doesn't mean you can't cut down on audible disturbance. Like other forms of stalking, don't drag your feet; don't scuffle the leaves unnecessarily, but lift and place your feet carefully, being ever cautious to avoid those ear-splitting, dead twigs that can send a 'crack' echoing through the trees. Wet leaves can also be treacherous so watch your step. Consider each footstep as you stealthily move through the wood. There's no hurry and I recommend the hunter stops at more frequent intervals to take a studied look around than when out on open ground.

You need to look all around your position at all times, at what could be on the woodland floor, flat against the tree trunks, sitting on limbs and

branches. From the ground up, everywhere around you has the potential to produce targets. Shooting in woodland holds many different attractions to the open fields and can be quite exhilarating. If you're lucky enough to be able to walk through a large, old, mature wood in this way, give thanks to the owner as every time you visit you're entering a magical place, full of things to see and hear. A jay flits across between the trees to disappear into even the sparsest of cover. How the technicoloured corvid manages this is a mystery, until you realise that it uses shadow, cover and remains motionless. A magpie chack, chack, chacks from a position high above, squirrels scamper busily around doing squirrely things – it's an airgun hunting heaven.

For the challenge and variety of targets you'd be hard pushed to find better hunting for the air rifle than the English wood. Not only do you need almost extra-sensory senses but also remember, there are particular tricks to employ when a potential target is spotted. For instance, if a bird pitches into the trees it'll head straight for the area where the twigs, or whatever foliage is available, is most dense to give itself as much cover as possible. It depends on the species of bird, and any can do this, but more likely corvids, such as the jay and magpie mentioned will head for the upper branches before flying out. Woodies usually just head straight out. A tip for targeting an opportunist shot such as this when the scenario arises is, don't try to scan the foliage where the bird entered the tree but train your scope to scan the top of the tree where the branches are barer. Here you might just get a crack at the bird as it makes its way up, before heading out. If not alarmed, it could sit up there looking around. However, should another follow it in, don't start dithering over which to sight on; choose the area you feel one particular bird will appear from and stick to it. Sweeping your rifle from left to right will only have you unready and miss the small opportunity you have. If it's a pair or lone woodpigeon that's flown into a heavily foliated tree, chances are it'll just flop right out again anywhere, so don't waste time waiting for this to climb the tree because it won't. Jays and magpies are birds that use the 'climbing' tactic but woodies will land in a tree to rest or feed. If they're resting after feeding, these trees can be known as sitty trees and for a woodie it can return to the same tree time and again. These are easily found by the amount of bird droppings, or 'splashings' as they're known,

found around the base of the tree along with the birds' downy feathers. To sit or stand quietly and patiently within range can produce good sport.

Other areas to hang around are feed-hoppers. These can be found in woods for game birds and those that have duck pits. Everything will come to know that these bins are packed with food. Indeed, squirrels and even rats will gnaw their way in to get at the food inside, especially during a harsh winter.

Another form of shooting I find very enjoyable around the woods is shooting woodpigeon when they've taken to the thick, ivy-covered trees to feed on the ivy berries. The birds can become so preoccupied as they jostle each other for the berries that they sometimes don't notice the first few shots, or birds dropping from the tree, because birds are continually crashing into trees near them to feed. Once you've found a place this is happening, stand with your back to a tree in full camo and wait for the best shot to present itself.

For once, the birds are easy to spot in the bare branches and also stand out against the lush green of the ivy leaves. The best time to shoot these birds is before they've been disturbed. Birds new to the area are cautious, but not as cautious as ones that have seen comrades fall, or you walking beneath the tree canopy picking up your hard-earned prizes. When birds are new to an area, they're flitting around looking and generally taking over the trees. They'll barge anything out of their way to get at ivy berries because in a harsh winter the fruit can really be their saviour. Unfortunately for them, but fortunately for the well-organised and observant airgun hunter, finding woodies feeding in this manner can result in challenging and exciting sport.

Again, don't overshoot an area, just take what you need for the pot as depending on region, weather conditions, and density of pigeon population in relation to the food supply, you'll have a good few months at them. When it's over, an area can be completely stripped of berries, leaving just bare stalks, the downy feathers below bearing testament that they've been there. In fact these are signs to look for amongst the berries that remain to indicate that the birds are frequenting and feeding confidently in the area. Some use lofters (see Lofting) to encourage birds to the shooting position, or install a feeling of safety so they land near the shooting position. However, when the birds are feeding in this way, I've

never found that deeks were needed because the birds are coming and feeding anyway.

Stalking

The word ‘stalking’ has already been used quite frequently in this chapter as generally it’s the term used to refer to the way we stealthily walk up on quarry, undetected, in a myriad circumstances. Many will know the word in association with a sportsman hunting deer. A deer stalker, of course, being a hunter who purposely walks up undetected within suitable range to shoot a deer with a suitable calibre of firearm. In relation to airgun hunting, ‘stalking’ is specifically used as the term to describe a technique widely accepted and employed for targeting rabbits; basically, walking up undetected within range to shoot the rabbit with a suitable power of rifle – in this case the 12ft lb air rifle. This requires the shooter to get much closer to the quarry, due to the relatively limited effective range and it’s one of the major reasons why stalking up on feeding or ‘sunning’ rabbits is by far one of the most demanding of hunting techniques that the air rifle hunter needs to master.

Most usually, this method is employed during the spring right through to late autumn. Incidentally, although stalking is in essence ‘sneaking up’ to your quarry without it seeing or sensing you, we shouldn’t kid ourselves, as the truth of the matter is, most times it probably has. However, the secret of effective stalking is to get within range without your movements overly alarming your quarry with the result that it bolts for cover.



The crucial moment at the end of any stalking situation – taking the shot

The basics of stalking are: Whenever possible, approach from downwind, keep as low a profile as possible, move slowly and quietly taking advantage of every bit of available cover, including shaded areas, on your way to the target. The use of natural cover will be dealt with in greater detail later.

Camouflage clothing is by far one of the most useful aids in the airgun hunter's kit bag. In summer, lightweight over-wear such as a mesh suit is ideal, but as you'll be walking and then crawling through and over rough ground, it's always advisable to wear something more substantial underneath. Incidentally, the pattern of camo isn't overly important as long as you're using an appropriate colour blend suited to the summer hues of the open fields and hedgerows you'll be stalking along. As we've touched on previously in the chapter on Camo and Fieldcraft, obviously soft-soled, dark green trainers or lightweight field boots are a must for feeling your way across the ground, and importantly, the whites of the body (hands and face) should be covered if you're to get up close and personal with ol' bugs - and that means facemask and gloves.

Any quality spring-powered, gas-ram or PCP air rifle with general specification 3 – 9 x 40 scope will suffice for this method. Although I always prefer to use a PCP carbine with a good low light scope as you'll

often find stalking most productive in the early morning or late on a summer evening when the light values fade.

One of the first mistakes the novice bunny stalker makes is to attempt to creep up on rabbits that are so obviously to the experienced eye, ‘unstalkable’. Let me explain that further: Firstly the ground may be unsuitable for a stealthy approach, the rabbit may already be on high alert or there are other factors to contend with such as ground feeding or nesting birds interspersed amongst the feeding rabbits. If so, leave them be and move on until you find rabbits that are stalkable.

As for the ground you’re going to have to move over, stalking often needs to be done on ground that is completely or relatively flat with no cover. Rabbits that are feeding out in a freshly-cut grass field during daylight hours might appear confident, but don’t mistake their apparent nonchalance as foolhardiness. It’s anything but, as the animal’s every sense is ready to detect anything approaching that resembles danger. This is why you need to adopt the stalking walk and learn how and when to use the various stages; those being to half-stoop, then to lower yourself progressively as you draw near. On sensing your approach the rabbit will freeze, and could immediately bolt for cover, or lie flat to the ground. If its ears are pricked up, it’s heard you and is listening for danger. If it has stopped feeding you can be sure it’s also looking in your direction.

Going the Distance

Here’s the right way, to get within range to make the telling shot: If there are bushes or trees behind you, use these to prevent showing yourself as a silhouette; basically, don’t allow the rabbit to see you in outline. If there is no backdrop to use, then you only have one option and that is to reduce your size to distort what the animal can see. Whilst camouflage works and works well at breaking up or disguising the unmistakable human outline, unfortunately, against a blank or uniform background of either sky or the field behind you, even if wearing the best camo available, you will show a certain amount, if not all, of your body shape in hard outline. This is a situation when you need to break up the human form and still move forward, and it sounds impossible, but it isn’t. Also, you can never put a definite range to target that you should change to these different levels of approach, but there are basic guidelines to follow – these are:

The closer you get to the target the smaller you must try to make yourself appear. This means that almost as soon as you've spotted quarry, you should adopt the half-stooping posture as you begin carefully to make your approach.

Once you get closer, continuously watch the animal's demeanour. Is it showing signs of being worried at your approach? If so, stop. If not, then the closer you get to the target, reduce yourself lower, walking as low and close to the ground as you can. This is straining on the thigh muscles and you'll soon need to get down to your hands and knees to crawl closer to the target. Certainly, towards the end of the stalk you will have to belly crawl into a final position, using your elbows and knees to move forward.

While making the final approach, you should adopt a 'move, stop and look' procedure. Keep an eye on all rabbits, especially the closest to see if it has sensed or is disturbed by your presence. If all is well, choose the rabbit in the feeding group that presents the best shot, and then when within range, take careful aim and take the shot.

The golden rules of engagement are to check; a rabbit on the alert will sit bolt upright, ears pricked, nose twitching as it uses its exceptional hearing and sense of smell to detect danger. They really are wary little critters!

Now, in a perfect hunting world all would go according to plan, you would reach a distance to take an effective killing shot, and the rabbits would remain perfectly still to let you achieve this end, but it's hardly ever that text-book simple.

For a start, the most infuriating factor of stalking is that not only have you to be mindful of the quarry you are stalking up to (old bugs), but also quarry that might spot you on the way there. Rabbits in the field that you haven't seen may bolt for cover, bobbing up as if from nowhere.

Similarly, as mentioned before, woodpigeon can suddenly crash out of the trees with clapping wings sending your intended quarry scuttling for cover. Likewise, the magpie can be an infuriating nuisance shouting its alarm call to all and sundry that an intruder is in the area. If you're hunting over or around a field in spring into summer that has nesting lapwings, forget it. The peewits aren't deliberately spoiling your sport, only thinking of the family by trying to divert you away from the nest or the flightless chicks that you will encounter scurrying across the ground.

It can be frustrating but all these factors need to be addressed and taken into consideration in a stalking situation. Even unseen song and game birds could flush out of cover to signal your presence to everything in the area and beyond.

If that weren't enough to contend with, there's also the possibility of birds flying over at the last minute. This can be a nightmare, in summer especially. Crows can drift over at the most inopportune of moments, their raucous 'kaarr, kaarr, kaarr' cawing alerting anything within 'crow-shot' that everything isn't as it should be down below. Even woodies flying over the same field; if they veer off their flight line close to the feeding rabbits, they will notice and carefully look around for danger. If you notice birds flying into the area don't look directly at them for any reason as they will invariably react to your attention. In these situations, you can only freeze, and keep your eyes and head lowered. As rabbits are creatures of habit, if they do bolt at this type of disturbance they'll often only nip into the nearest cover or lower themselves flat to the ground. Whatever the reaction, freeze; keep totally still. If you don't make any undue movement, the rabbits, more often than not and if they aren't worried by the 'blob' lying on the ground (you), will soon resume their previous activity.

Stalking isn't only a long distance option and mostly, just as many times it can also be adopted in situations when you might encounter rabbits quite unexpectedly, often while opportunist shooting. Usually, they'll bolt on your approach as your sudden appearance in the area will have surprised a small group or a solitary feeder – a case of being 'too close for comfort', so to speak. If you aren't too close, and the rabbits aren't too twitchy, they'll probably hold on the alert or hop further down the hedge line or field. As they have not bolted for cover, it means they know you're there but haven't particularly identified you as representing danger. In this situation, you could try the disappearing act of slowly lowering yourself down to your knees, then onto your stomach, eyes facing the floor. Again, it's nigh on impossible to put a time-frame on moving closer in these situations because the behaviour of the rabbits will dictate your next move. Always bear in mind that you should never rush. The speed of your approach isn't only dictated by the proximity of the rabbits, but also the terrain you're moving over. It could be smooth,

fresh-cut grassland or uncomfortably rough pasture, both obviously have their own particular nuances for using the stalking technique.

Over rough, hilly ground you can at times travel quite quickly between areas, using hillocks and clumps of foliage to mask your approach, then slowing once again to a belly crawl to peer carefully over to see what may be feeding over the brow of the hill. Unfortunately, in this type of terrain, a rabbit can seemingly hide behind the smallest clump of grass, suddenly darting off in a zigzag to disappear into the distance. The times this will happen will far outweigh the textbook stalks. Also, a rabbit when flat to the ground, even on a relatively flat grass field, can be virtually invisible, only being seen when it bolts. You might think it incredible how they manage to make themselves so invisible, but remember, this is how and why they survive detection and capture from natural predators such as foxes and stoats.

Whereas some would look over a set of fields on land relatively flat and see nothing but a few trees and hedges, the experienced stalker's eye will notice every bump, bush, nettle patch or fencepost. These are all objects to be used to mask an approach. Using a row of fence posts you can get surprisingly close to a rabbit feeding on even the flattest field. Move when the rabbit is relaxed stopping at each post. Stand side-on to disguise your shape and if downwind from the rabbit it will find it difficult to detect you as long as you remain completely motionless. Whilst the rabbit will notice movement, as you get closer it will also detect your approach felt as vibration on the ground. Remember, rabbits signal to each other by thumping their hind legs on the ground as a danger signal. They're tuned into the vibration of anything unnatural or running. Sheep that run across a field on your approach will send rabbits to cover, and a flock of sheep moving in such a manner is thunderous to a rabbit. This illustrates the importance of your footsteps and how quietly you walk on a successful stalk, and as your movements need to be slow, steady and fluid, so do your footsteps need to be light, carefully chosen but purposeful.

Walking on long, damp grass can be done quite quietly, but as always there's the possibility of a broken branch or twig if near hedges, so still pay attention to the terrain as you move. If walking over marshy, sodden ground, place your feet on the highest clumps of grass as these are the

driest and will make less sound. Don't step into deep mud if you can help it. The sound of your boot coming out will make more noise than when it was carefully placed down into it.

Stalking is also very strenuous and will test the level of every hunter's fitness. In fact realising your own limitations, and certainly knowing when not to stalk can save valuable time in the field.

Another factor is how much movement the rabbits will tolerate. Rarely will they be unaware of your presence. As we've established, movement is the hunter's biggest give-away and when in a position to take a shot, bringing the rifle on aim correctly is crucial if you don't want to blow it at the last minute.

Presuming that you are now in a prone position, and have read the chapter on shooting positions, then you'll be manoeuvring the rifle forward of your position to sight onto the target. The rifle must be kept low, flat and side-on to the ground with the right-hand side of the rifle uppermost. This is so you don't catch the cocking lever. Few PCP air rifles have dedicated left-hand bolt actions so I'm sure most will have to use this method of bringing the rifle to bear. Alternatively, if you've stalked along a wall or hedge and are now in a kneeling position, there's another factor to address in bringing the rifle on aim. That is to bring it slowly up to your shoulder directly in front of your body; this way your body acts as a backdrop behind you so the movement of the rifle is screened. That means not allowing even the tip of the muzzle to present itself forward of your position outside your outline as you bring the rifle to bear.

You may feel foolish but the best way to practise this procedure is while watching yourself in a big mirror – full length if possible. Stand in front of the mirror and practise bringing the rifle up to your shoulder to shoot from different angles: kneeling, sitting, lying prone and even standing.

Also, remember that when lying prone you're at the same level as quarry on the ground. Many wonder why at the end of a stalk and in this position, the quarry spooks. It can be the simple fact that it's alarmed at the movement of the rifle along the floor. Alternatively, the rifle catches on something and makes a sound; it can be that simple. This is one of the reasons that I rarely use a rifle sling when hunting in this way.

Another factor that can make or break a successful stalk is how you observe the target as you approach. As mentioned previously, when looking at any animal, if it detects you try to avoid making direct eye contact. Keep the rabbit in your peripheral vision but don't stare intently at it as it will more often than not realise you're another animal and combined with any movement, smell or sound it may have detected, will act accordingly. In other words, 'leg it'. Only when its body language shows it's relaxing and, for instance, it has resumed feeding should you continue the stalk towards the target.

How a rabbit 'sees' the stalker can only be imagined. Obviously, it hasn't got the benefit of seeing you as a standing, average-sized adult would. This is why a ground-dwelling animal such as the rabbit relies so heavily on its other senses of hearing and smell. I'm sure the fox is detected by smell more than being visually detected. If you get the opportunity, watch a fox stalk a rabbit and you'll not be far wrong copying the way it carefully chooses a path, hugging the ground using all cover before launching forward to grab the bunny.

The effort needed to stalk is not only a strain on the muscles but on the nervous system and the adrenalin will have you shaking. As you reach a position where you feel you can make an effective shot, lie perfectly still and rest. Calm yourself before even attempting to put the scope crosshairs on the target. Once within a reasonable range, which for most airgun hunters should be within 30 yards, you should always go for a head shot.

Another of the last checks you need to do before taking the shot is to ensure that the path from muzzle to target is clear. At ground level a mound of earth could deflect the pellet as could coarse, heavy grass or foliage.

Slightly tilt your head to one side of the scope to visually check the terrain. The scope can often give you a false sense of security at this stage so double check all is as it should be. Don't lift your head above the scope as that'll show more of your body. A quick but studied look should be all you need to do, then settle those crosshairs on the kill-zone and it's yours.

There are times though when stalking within range of rabbits is impractical, nigh on impossible or both. This could be due to many

factors; the terrain is unsuitable, the wind isn't in your favour, or just the fact that the rabbits have become very, very wary. There is no need to despair as the airgun hunter should be a king of adapting to the situation he faces, and for times such as these, there is at least one other technique at his disposal, which we will look at next, that being the art of ambushing.

Incidentally, another challenging method for targeting rabbits is not only shooting at night with a lamp but also stalking with a night vision riflescope. These nerve-wracking techniques will be dealt with in the coming chapters, so suffice to say, practise hard and long during daylight hours and you'll soon find yourself wanting to take on the challenge at night.

Ambush Shooting

Sometimes known as 'static hunting', this requires the airgun hunter to wear full camo clothing, use some form of hide or make use of natural cover, and usually a combination of all three. The ambush shooting position obviously needs to be chosen or built within effective range of where the quarry is known or expected to move, frequent or feed. Ambushing from a hidden shooting position is used in conjunction with many other methods to bag wary quarry. These can range from decoying, baiting-down and in some instances, even indoors rat shooting. So it follows, the most important requisites of successful ambushing are a well-chosen shooting position, good camo techniques and sometimes a well-constructed hide.

Ambushing gives the hunter the advantage of surprise and in most cases if you choose your shooting position correctly you'll also know the approximate range of the species targeted. This is most prevalent when baiting crows or magpies down at a known fixed position. Further details for shooting corvids are in the section devoted to that technique.



Ambushing can be a very productive hunting method

Similar ambush tactics can be used to set up in wait near a rabbit warren. If you've located the main entrance holes and runs to a large, well-populated warren, this form of shooting can be very productive. Again, cover and concealment is your major concern. In many cases you should be able to position yourself under a hedge or heavy cover within range of the target. If you've got a sling swivel stud attached to the forend of your rifle, and it's a PCP, you can take advantage of this and shoot using a bipod. Otherwise, use a camo rucksack as a rest. This can also help to partly conceal you from the forward position. Whilst, by and large, ambushing is a set 'hidden and sniping' technique, depending on what quarry species you intend to take by surprise there are certain factors pertaining to various situations that need to be addressed if you want to operate to the optimum level. Ambushing our main land-borne quarry, the rabbit, is a much more straightforward affair than sitting in wait for flying felons. Typically, what you can get away with in the form of what can be usable cover for sniping rabbits will often be totally

unsuitable for crows or woodpigeon. Often, you only need a camo screen forward of your shooting position to pot rabbits as they emerge from a warren or a hedge line, but if you don't have complete cover around you and are completely hidden from prying eyes from up above, then you'll not stand any chance of ambushing quarry landing in trees. A crow's eyesight is legendary and the woodpigeon's equally keen. They're as much on the lookout for danger as they are food.

Firstly, we'll deal with the animal that hops and jumps – the rabbit. Although knowing quarry movement around an area is essential to successful hunting, to reap the best rewards from this method, you really must know the movements and specifically the time of day most rabbit activity can be expected in a given area on your shoot. You don't want to be lying or sitting up for hours on end with no activity. Often, you need to be up before sunrise to get into position and many times within the first half hour or so of daybreak you can have a couple for the pot. It goes without saying then that in summer when dawn breaks very early, only the dedicated regularly get up at such ungodly hours. By and large though, when the sun is hot and up high in the summer sky, the fields aren't the best places for the airgun hunter but that's been dealt with in the chapter on Seasons – I mention it here as a reminder.

They say that patience is a virtue and nothing worthwhile comes easy, and that's never so true than when you've made the effort to ambush on a summer's morning, but whatever the season, it takes careful planning, fieldcraft and a disciplined shooting technique if you are to achieve optimum results. Note the use of the word 'discipline' as this is only second to patience in order of importance when ambushing. When you've stuck it out and waited three or even more hours and not had a sniff, it can be tempting to take on a dodgy long shot or one that tempts you to try the impossible at an awkward angle. In the right circumstances, in ideal conditions, you might well be lucky enough to hit the mark, but luck should never be relied upon when you're at the moment of slipping the trigger. After sitting or lying for hours on end, then at long last to spy an opportunity, it can be all too easy to grasp at straws. For instance, shooting rabbits as they emerge from hedge lines can be very rewarding but challenging. You've got to drop the rabbit where it stands, as one kick off those powerful hind legs will see it lost in

the undergrowth or straight down the hole it emerged from. Wait a while and it'll more likely than not move out a little further to present a clearer shot. That's the one to take and the one you should wait for.

Even when you've chosen a suitable shooting position, the nature of ambush shooting means it can be very frustrating just sitting or lying in wait. It's best to allocate time spent ambushing, especially in winter, to shorter applied sessions, and I know that from bitter experience, as I've sat, or that should be 'lain prone' for well over five hours on a bitter cold, February day waiting for a solitary bunny. The reason I remember that particular month and session is that although the rabbit did eventually appear – which I duly missed – in hindsight, I now realise I also experienced the first stages of hypothermia and believe me it's no joking matter. I'll recount the tale because it's certainly a cautionary one.

After forcing myself to stay awake and I'm sure I must have at some stage started to doze, I eventually got the chance of a shot. Although well within range, again with the advantage now of hindsight, I realise my clumsy clear miss was due to tiredness and the fact that my co-ordination was affected by the cold weather's effect on my body. Stubbornly, I carried on waiting in the vain hope that I would get another chance before nightfall. Eventually, it became too dark to see with the scope so I finally relented and admitted defeat. As I tried to move, not only was I numb and shivering, but also for a second or two nothing moved. No, I wasn't paralysed but rather my clothing had frozen to the floor. When I peeled myself up off the deck, a layer of soil was stuck to the front of every part of my body that'd been in contact with the ground and in the gloom you could clearly see the outline of my prone shooting position in black soil on the surrounding hoar-frosted floor. It looked eerily similar to the chalk outlines you see of a dead body in the movies. If I'd stayed there any longer, who knows? Some unlucky farmhand could have found me the next morning, and that, as they say, would have been that. Needless to say, take warning from that story.

So with the doom and gloom out of the way it's high time we now get into the nitty gritty of successful ambushing. Also, I reckon it's worth you having a quick re-read of the section on Observation – a very important requisite to all methods of airgun hunting.

Previously, I've mentioned how an overly uncomfortable shooting position isn't conducive to accuracy, and this certainly applies to the shooter waiting in ambush. Experience has taught me a few major factors pertaining to this form of shooting. Firstly, prepare for the unexpected and be ready to adapt accordingly, and while waiting, adopt the most comfortable and relaxed shooting position you can. It may sound obvious, but if leaning on anything for any length of time, put padding between you and the hard surface. This is where shooting mats or cushions are a godsend. Also keep strain off the arm muscles until you need to use them to alter your aim. As I've mentioned previously, holding a rifle up for any length of time has been dealt with in Shooting Techniques, where possible use a branch as a rest until you need to take control of the rifle to place the crosshairs on a selected target. A typical scenario for this being those potentially long waits for birds coming to sitty trees. More specifically, here I'll address the use and positioning for using and correct deployment of a bipod.

Give it a Rest

Some are of the opinion that you plonk the rifle down on the ground on the pod, lie behind it and wait for a shot. All fine in theory, but body positioning and even height of bipod need to be considered for both shooter comfort and effective use of this super-accuracy-aiding accessory. For instance, if shooting out of a ditch or over the brow of a hill, there is one very important reason to use a bipod. You are already able to lie in a way that puts your upper body in a natural angle so you can comfortably look around the area you're observing.

Also, the rifle is already elevated high enough off the ground so you're not tempted to lower it, as could happen if holding it, too near to the ground when you take the shot. At longer range, there's no reason to keep yourself too flat to the ground. If you do, the pellet could well be deflected by something on the way to the target; a sod of earth, or foliage, or other such ground obstruction. In fact, where possible I always recommend the use of a bipod over propping-up the forend with your leading hand. Talking of propping-up, this nicely brings me to the importance of your body posture and position behind the rifle. You'll not always have a handy ditch to drop the lower half of your body back into,

so don't be tempted to overly arch or bend your back to lift your body to look through the scope. If you have to do this, you've adopted the incorrect shooting position. The strain might not be felt within the first hour but you'll pay for it when you try to move later the same or next day.

You can easily damage back muscles lying or sitting in awkward positions. Optimum body position for bipod use is to lie with the forearm of your leading arm flat to the ground at 90 degrees facing across the body or bent slightly inwards, but comfortably forward or at shoulder level to the ground. This supports the weight of your raised upper torso. The other hand can rest naturally by the side, underneath the rifle while waiting for quarry to appear, letting the rifle's butt pad sit in your shoulder under its own weight. Then, when a shot presents itself, slowly raise your trigger hand to take the grip, line up the scope crosshairs and gently squeeze off a shot. Pay attention at this stage. Even though the rifle is steady on a rest, your body behind this fixed point needs to be equally stable; no flinching on taking the shot, dropping the shoulder, or moving the head. You're steady at the forward position, but you need to keep just as steady at the rearward position to achieve the ever-important follow-through. The shooting position may be different but the theory and physics for firing a rifle always remain the same. Lock onto the target, squeeze the trigger and freeze while you watch the pellet slam into the quarry's kill-zone. A tip for those having trouble in keeping the shooting hand steady is to bring the leading arm hand up to support the wrist of the shooting hand or underside of the rifle butt, thereby forming a secure cradle for the rear of the rifle. You'll soon discover which works best for you.

Incidentally, some bipods come with leg extensions for extra elevation and there are even extra-long-legged, specialist bipods that allow you to adopt a sitting position and still shoot the rifle off a steady rest. Whilst there are various heights of bipod, you can even obtain steadying aids that allow you a rest while standing. These are shooting sticks such as monopods, extra-long bipods or tripods. Although you might find these useful for rare occasions, or if you're standing shooting stance is particularly shaky, I'd recommend that you don't start to rely on one as it means carrying extra kit around and more to sort out before you take a

shot; at least when not in use, the bipod folds flat up to sit neatly under the forend of the rifle. Choose a lightweight model and it won't unduly affect handling when shooting off-hand and you can still fit a rifle sling to the bipod's extra sling attachment point. So in that respect, you tell me – can any airgun hunter ignore the benefits a bipod affords?

Where and When

As different quarry species have different routines it follows that there are better ambush areas for specific species. Here are some examples and ways to tackle the areas from a perspective of ambush:

A good ambush point for rabbits is obviously, and as outlined earlier, near their warrens but I also favour surprising them as they emerge from hedgerows or as they cross farm and dirt tracks. The obvious signs to look for are well-worn runs out from cover; as well as flattened grass stems, look for soil worn flat and shiny under a hedge, wire fence or side of a vertical wooden fence or gatepost.

In these positions, they cross where they have the best view to the front and to either side, but hold up within range near a well-used crossing point and you could reap rewards. When they've decided to leave cover, they'll either bolt straight across the track or and this can often be the case - most often they'll either just sit on the edge of the track or sit almost in the middle. The reason for this behaviour I presume is because they're weighing up the area, deciding if it's safe to enter the field they're facing or move to the area they're intending on feeding over. This is the opportune moment to snipe them from cover. The optimum shooting position is to conceal yourself on the nearside of the hedge line next to the track so the rabbit has left cover before having any chance of spotting your position. If the undergrowth is thick and tall, position yourself within this cover but with a clear path for your pellet from muzzle to target. This ensures that there are no mistakes shooting alongside dense undergrowth and it also gives you a better angle of fire.

Utilising Natural Cover

Cover you've walked beside while opportunist shooting the fields is also typical cover you can use for hiding in while waiting in ambush. I'm sure after a few walkabouts you've established the warrens so you'll know

where best to settle down to await your unsuspecting quarry. Not to put that big a deal on it, but this form of hunting isn't for the shooter who might be wary of scratching their treasured rifle or getting the odd knock, scratch and scrape themselves, but if you want the results ... no pain, no gain, as they say. Seriously though, getting amongst thickets, brambles and even thick ground cover with stinging nettles isn't the easiest of tasks, but quarry – specifically rabbits – are often found in these inhospitable areas because they realise that these places afford them the safety they require, so you can be pretty sure they won't be far away. A note of caution, though, when moving through nettles; don't presume to use even gloved hands to move them aside. Light summer wear will often be too flimsy to afford your skin protection against the aggravating nettle stings. Instead, use your rifle, or if wearing a suitably padded jacket, the back of the forearm. If settling into position amongst foliage with nettles, avoid applying body pressure onto the plants unless suitably padded. In this situation a padded gun bag can be used as a seat, as can a shooting mat, rucksack or one of the specialist padded ground seats.

As always, stealth and slow movements are of vital importance. Even though you plan to use 'sit- or lie-and-wait' tactics, don't go stomping straight into the undergrowth or trampling the cover down as this defeats the object of entering the cover. Take the least disruptive route you can, and this way you're less likely to get too many scratches or scrapes, not only to yourself but it also helps to avoid damaging the rifle and snagging your clothing. This is where a pair of secateurs can be very handy for making a pathway that can be regularly pruned for future and continued use if the site proves a good point of ambush. Unfortunately, there's no chance that you won't disturb the area to some extent, as you invariably will, but once in position in the thicket or bushes you've chosen, you're in one of nature's very own hides. If you think it strange to choose these areas for ambush, once again, consider the fox that will lie up in this cover, awaiting a rabbit to emerge from the very same area.

Try to position yourself for optimum manoeuvrability, so that you won't have to make too much noise when you want to change position. This is more important should you be choosing a smallish thicket of foliage or bush in a wooded area, when you may be using it as a completely self-contained natural hide from eyes above. For this, ideally

the thickets you choose should be smallish so you have what is, in effect, natural cover surrounding you and a canopy of foliage concealing you from above, but not so much cover that you can't virtually do a 180-degree turn with your rifle if the need arises. Also, and I know I stress this, but ensure that shots out from this cover aren't in danger of being deflected by long grass, twigs and the like. Similarly, if shooting upwards at anything that may pitch into trees, always ensure that the path to the target is clear. Other forms of utilising cover can be as simple as shooting from behind fallen or uprooted trees, dry stone walls, or even out of drainage ditches found on the sides of fields. The idea is to hide or conceal yourself, and you can even do this in plain view using suitable camo in conjunction with a large enough backdrop, such as a hedge, bush or even a large tree trunk. The objective is to shield your figure being silhouetted so that light doesn't show your upper torso or body as a hard outline as it would if you were backlit, so to speak.

Another tip is, while holding up in ambush always use your ears as well as your eyes. You'll notice that I often mention this – 'hunt with your ears as well as your eyes'. Rabbits will be heard moving through or underneath thickets, scratching or plucking grass from the surrounding area and you'll likely hear woodpigeon land in trees. Granted, they can slip in undetected, but often the clapping sound of the wings as they seemingly clumsily alight into the trees gives them away. Don't look up immediately as you'll be seen. Wait a while, until the birds have done their initial neck-craning, eye-scanning reconnaissance of the area, then slowly look up to try to spot the tell-tale white patch on the neck. They'll be hard to spot, no matter what the season, as even in trees with sparse foliage the bird isn't one that's easily detected. Choice of rifle for ambush shooting is again a matter of personal choice, but as it's a static method, standard length rifles give extra shots and they also balance out nicely for bipod use. Carbines can also be used off a bipod and for shooting freehand; they can be more manageable in restricted spaces, especially useful in the confines of a hide.

The construction of a hide is detailed soon, but first, to one of the most basic of hides – the use of a suitably-sized piece of camo netting. Camo net has progressed a hell of a lot since the days of the heavy tank mesh used by the army to conceal vehicles and positions from enemy

planes flying above. The theory of the use of camo net is exactly the same, that being to disguise and hide that which lies behind or beneath. Modern camo net is lightweight, offers some water-resistance and is very, very effective. A length of net approximately 10ft x 5ft (although 12ft x 56 inches is a commonly found and available size), is sufficient for covering the human form whether thrown over branches or just over the shooter lying prone. The more net you use, then granted if you're constructing a hide, then the larger the interior can be, but the more you'll need to carry. In many situations I prefer to use a stalk-and-sit technique. A cross between stalking and then sitting up in ambush as you wait in a likely position. This is when full camo wear and/or a suitable piece of camo net is very useful. If it can be rolled up to fit in the rucky, all the better.

Here are just a few instances where camo net really produced for me when there was little natural cover to use:

One of my most useful ambush tricks is to use a suitable dark pattern of camo net thrown over myself, with my rifle on a bipod. Alongside a freshly ploughed field it completely breaks up the outline even though you'll appear as a 'blob' on the landscape, you're still accepted as an unthreatening object.

Another method I learned to use was due to a problem I encountered one autumn and which I eventually solved. There was a huge warren teeming with rabbits, and it had been built in the most inaccessible of areas. A tangle of roots surrounded the warren and bramble and ferns littered the entrance holes and runs to other areas. There was no cover to snipe the rabbits from, with the only shooting position that would afford a direct shot being from the open field, unfortunately in plain view. For a time, a pop-up hide did an excellent job. Left for a few days it was accepted and a good few fell to the lead before they began to question the Tardis-like object. Then I discovered the desert sand-coloured camo nets. Pigeon shooters swear by these for putting across or around a few bales to form a hide in autumn. The way I used one was to lie within range, in the prone shooting position actually in the stubble field facing the warren. The net was draped completely over me like a blanket and this was amazingly effective as birds flying over ignored me because they couldn't make out a human shape. Rabbits had no idea where I was, and

the trick to consistent, continued sport was to regularly change my shooting position. Another tip I found for comfort was to use a shooting mat. The reason being, after my first session with the thick-cropped stalks of stubble digging into me it felt like I'd been lying on a bed of nails.

Talking of Positions ...

If looking to do some general pest control, then setting up ambush within striking distance of a feed trough can be very fruitful. Virtually all the flying quarry species will come to visit a feed, or indeed water trough at some point during the day. Corvids, woodpigeon ... even rats and squirrel can put in an appearance, and considering the fact that rabbits use the paddock for grazing and the gate access as a crossing area, you could possibly find everything here at one time or another, dependent on season. It's always a good area to try especially if you've had limited time to recce the whole area.

There is also ambushing in a way that gives you two options or better, put two arcs of fire into two different areas around your shooting position. A double-whammy approach, you might say. Obviously, this can only be done for those with the luxury of two rifles, but referring back to my chapter on combos, if you have two set-ups and you've taken my advice and fitted at least a front sling swivel stud, then another combo can be employed to use in the double-shooting ambush technique.

There is a myriad options in setting up two rifles, but the basics are the same no matter how you're shooting. Firstly, and obviously once again the ambush position needs to be chosen with great care. Both rifles need to be set on bipods and preferably and I'd now say by necessity should be pre-charged pneumatics, unless you have the option to hold one when shooting. You can lie up in full camo in the undergrowth with rifles pointed to either side along opposite lines of the hedge you're lying up in, or both out to the front at different angles, or in a few cases, if you can find the appropriate spot you can lie up in ambush with a rifle set in front and at the back of your position. The method is quite simple but does take concentration as you're watching both areas and, depending on what presents itself, you need to get behind the rifle to take the shot. It

can be difficult shooting, but very productive for covering a wide arc of ground once you've mastered the method.

Roost Shooting

Basically, this is just another form of ambushing as you're waiting for the birds to come back to an established resting place in the woods for the night. By and large, winter into very early spring are the optimum times for roost shooting, the reason being that there's less foliage on the trees. When it's particularly cold, woodies have a crafty habit of preferring to roost in conifer trees meaning targeting them here is impossible. Incidentally, note the chapter on Seasons and the advice given therein on roost shooting, particularly the months that the method is least productive.



The author blends back into the wood and takes careful aim on a woodie at roost

Once again, observation is the key to success as you watch where the birds fly out from the wood at dawn and return to in the evening. You need to be out in good time to see the birds on their early to late evening flights back to their chosen areas. This will probably be on the lee side of the wood amongst large mature trees. Other favoured spots are where conifers, ivy-strangled larches and oak trees are sited, any of which break up the usual sparse foliage of the season. Even when that's established, I recommend you enter the wood shortly after midday without the rifle to find the trees they will be actually using. Watching from outside the

wood, the trees you presume they're landing in might not be the ones they settle into. The usual white splashings at the base of the trees give this away. When these are established, locate the best spot to sit or stand which gives you the optimum shooting position when they do return. There's nothing more infuriating than to be there waiting and find a few gangly bushes or trees in your line of fire, or be 50yds to the left of the best position. There's no point going and walking around spooking the birds before you begin, so cover all the options. Once you've established this, enter the wood, this time armed, at the same time as your initial visits and take up position in the area you now know gives you the best chances of bagging a few. In many areas, the birds can be quite obliging and the perfect roost site can be right on the edge of a wood. I say 'perfect' as this allows the shooter to take up position within the wood, the gloomy inner woodland floor often helping with concealment.

Preferably sit or stand with your back to a tree to disguise your body and, needless to say, as a backstop for concealing your outline. Your head and hands should be covered, as uncovered they will stand out like white warning beacons from the woodland floor. To prevent a fruitless wait, whilst the shotgunner prefers blustery days to carry away the blast, we do not want to contend with shooting in those conditions, so check the weather forecast before your trip.

Don't think the birds will only come back in the evening, as a steady trickle of birds can start to return depending on how they've fed during the day as early as mid-afternoon, and as often as they do, don't expect them always to announce their arrival on whistling wings or by clattering into the branches. They can just as likely alight above and around you with hardly a sound. Many times, after taking a shot on what I thought was the first bird to come home to roost, an eruption of clapping wings set up from the branches of trees all around me.

On textbook days, a few will arrive and one will present itself perfectly. Let the bird settle, take careful aim, checking the path to the target is clear of twigs. Even a thick leaf can deflect a pellet enough for you to miss the vital kill-zone. Then once certain of the shot, squeeze the trigger and the bird crashes to the deck.

Don't be in a rush to pick up as others could be coming in within minutes or less. For the airgunner that's how it works best. On other days

a whole flock could come whistling in, fly around the back of you and then settle into the roosting trees.

It's an exciting moment as you anticipate the challenging shots ahead, and although you'll be eager to take the first shot, you really have to let these birds settle because you now have many eyes that could detect your movement as you sight in on a bird. However, when the woodie has come into roost in such a way, even if a few birds notice your first movement as you take aim, if you see them getting twitchy, as long as you hold the position and no single bird flies up to take the others off with it, they'll tolerate this as something natural on the woodland floor and carry on to settle down to roost. This really is one of those 'heart in your mouth' moments as you freeze, wondering and waiting for them to settle fully so you can train the crosshairs on the bird you'd already picked out, and hopefully bag it. Then they will be up and away, but that's the name of the game in roost shooting.

In most woods you don't need a hide; if anything, a hide restricts your movement and angle of fire on the birds in the trees. Like many other hunters, I often prefer to stand while roost shooting as this allows you to edge around into a better position to take shots on birds alighting into the upper branches. However, if you are certain that birds will land within an area you can see comfortably and target while seated, this is less strenuous and more comfortable on the neck muscles as you wait.

Once you've become adept at roost shooting, which is a very skillful form of airgun hunting, you could shoot on into the night if there's light cloud backlit with bright moonlight. These conditions give you an ideal backdrop to sight the roosters against. Only target those showing as full body outline silhouettes, as these will more likely have few twigs to deflect the pellet. This is exciting and demanding shooting, the birds often more unwilling to fly off as is usually the case when they've only just settled in, but note: never shoot with a gun lamp as this is illegal.

Once you've shot a particular roost site, leave it a good few days. If you can, best to wait a full week before returning because the birds wise up quickly and will find another suitable area to roost, and Sod's law says, usually an area off limits for the shooter as they'll be further into or away to another wood.

A very important part of the kit for the roost shooter is the choice of scope. A good quality 3 – 9 x 40 will suffice but a special low-light scope is handy for when the light begins to fade, and during autumn and winter the light is gone all too quickly. Sometimes you have a very limited amount of light for shooting. Granted shooting at silhouettes can be done but as I've outlined, only in perfect conditions when you are very experienced at this form of hunting.

Another factor to contend with is judging the range of the bird. Judging distance is hard enough at the best of times when you have objects near your target to relate to. However, when all you have is a blank sky behind and around your quarry, range estimation becomes very tricky indeed.

That aside, presuming you've nailed those upward angle shots and are confident in your aim points, roost shooting involves little else except common sense, fieldcraft, a steady nerve and an even steadier aim! As for roost shooting corvids, this is similar but has its own perils and pitfalls. If you thought woodies are hard to target then crows are more so. However, at times, because of the racket all the birds make as they come into roost, you can take the birds from trees and the sound of others joining easily overpowers the resultant crack of lead hitting crow kill-zones. Whereas the crow is a noisy rooster, jackdaws can have loose roosts but in total contrast are almost silent as they flit into what they feel to be a safe area for the night. Targeting jackdaws at a roost site can be almost impossible. There are much better places to tackle these corvids as you'll have read in Quarry Files.

Sitty Trees

Whilst there's no denying the effectiveness of shooting woodpigeon at roost during the evening, many airgun hunters won't even have a roost on their shoot. However, woodies also have routes (flight lines) to get to and from the various feeding areas, but most importantly to the airgun hunter looking to nab a few for the pot, in-between times the woodpigeon use what shooters affectionately term sitty trees.

Not only found in woods or amongst small copses, these trees can be a small standing group amongst fields or even a lone tree on a landscape all offering the airgunner this accessible alternative to roost shooting. In

fact it's surprising how the birds can often prefer a lone single tall tree in the middle of fields or a dead tree with hardly any leaf cover. It's safe to presume this is because both afford such a commanding view of the surrounding area.

Optimum times for shooting in this manner are in autumn through to spring before the trees leaf up as the woodies can be picked off the bare branches with a precision shot, but if it's a dead tree with no cover, it's a perfect place to shoot all year around as long as you don't overshoot.

You can only establish the areas and specific trees the birds use with dedicated observation by scanning the fields and trees of the shoot with a good pair of binoculars, preferably from a reasonable distance. It won't take long to spot the trees the birds favour and note the times they're used. A quick recce on foot around the trees should show bird droppings and downy feathers, dead give-aways that woodies are alighting here with some regularity.



Find yourself a sitty tree and you'll be in for some good sport

Incidentally, whilst sitty trees are used by woodies to sit in to either rest and digest food, they are also as much used as an observation post, or stop-over point before flying on to another area, or simply await others to

catch up and join them. A good 'un' is likely to attract other species such as crows, but never be tempted to raise your sights on these until they've fully settled into the tree. While woodies can sometimes zoom straight into the tree the crow is never so foolish, and on seeing anything untoward near the area will veer away, cawing loudly. Crows can indeed be a good indicator as to the effectiveness of your camo or the hide you've built.

That brings me to the next important issue after establishing the sitty trees, to determine a shooting position for the relatively limited effective range of the air rifle.

Whenever possible I prefer not to shoot from the confines of a hide, even though there are times when that's the only way to keep you concealed from the woodpigeon's incredible eyesight. Thankfully though, there are times when full camo wear or a modern ghillie suit and face veil will do the trick, but the white of the face and hands must also be covered with facemask and gloves. Next give-away is movement: If you're constantly raising your rifle or craning your head up and looking around you'll be spotted immediately. Similarly to roost shooting, ambushing woodies coming to sitty trees can be done standing or sitting, the former is only viable in dense woodland where you can stand with your back against a large tree trunk to disguise your silhouette and remain under any foliage canopy, to hide in the gloomy area on the woodland floor beneath. Usually in copses and amongst or near a small group of trees, a seated shooting position offers the better option for being able to blend into the surroundings. If seated on the ground, rest the rifle on your knee so that a minimum amount of movement is needed to place the crosshairs on the bird's kill-zone.

Another tip is, before the birds arrive, and this can apply to roost shooting, take a few shots at chosen small branches. Hit these and this will give you a confidence boost that you've sussed the correct adjustment of hold-under needed for the different angles of fire.



Watching and waiting – patience can be a virtue in airgun hunting

Patience is the name of the game and you'll often hear the birds come into the trees as they whistle in, or the clapping of wings as they clatter into the branches to waddle along into a comfortable resting position. Unlike roost shooting, the bird isn't going to be as relaxed once it has landed. Even before looking up, give the bird time to settle; you'll probably hear it call or be joined by others. It can seem like an eternity, but wait until the birds are in position until you slowly look up to seek the giveaway white neck patch in the branches. When spotted, slowly raise the rifle and sight the bird through the scope. Again, and I know I'm sounding like a stuck record, ensure that the path to the target is clear of twigs or leaves that could deflect the pellet. Incidentally, an amber colour front lens cover for the scope is useful to prevent the possibility of any light reflecting off the objective lens and possibly spooking the bird. If a few have arrived, choose the one offering the optimum shot or closest to your set zero. Done correctly, the slipping of the trigger should be followed by a satisfying 'thud' as the bird tumbles from its lofty perch. If

the tree is surrounded by undergrowth there's no need to retrieve the birds as more could be coming in.

Now, there's an important trick you can employ to bag more birds in these situations and that's as follows: When you shoot a bird, don't drop your rifle when the others clatter away out of the tree. Woodies are notorious (as are crows) for looking behind and down at any movement as they fly away.

If they spot you, and they will if you move your rifle, then they can mark your shooting position. This might sound far-fetched but believe me when I say I've had woodies fly out to come around and land in a tree behind or to my side but well out of range, plainly sitting and craning their necks, watching me. This still might not sound important but any birds alighting afterwards are likely to quickly spot their comrades staying away from the tree and quickly fly over to join them. I speak from experience as a lapse in concentration like this once bagged me one woodie while I had to watch bird after bird land in the tree on the opposite side of the field, clearly watching my position. This is just one example of the various tricks you'll pick up yourself through experience out in the field. You will make mistakes but as your fieldcraft and knowledge of your quarry increases you'll know instinctively by your target's behaviour whether it's going to sit tight, settle or fly! Incidentally, as we've been discussing the tactics for taking birds from trees, it's worth remembering those variables for upward angle and longer-range high shots we covered in the chapter on Shooting Techniques. Not that easy is it? So, that's the shooting method, but there is still more to say on this subject as anything that helps fool the birds into the optimum position for your shot is useful. This is where a technique known as 'lofting' could well boost your bag.

Lofty Aspirations

I'll mention this technique here, but it could equally be at home in Decoy Techniques or even previously in Roost Shooting. The reason being, a few lofted birds near an established roosting tree can often keep the birds coming in even though others have flown up after a shot indicating danger. The technique is not as widely used by airgun hunters as some would have you believe (it's a trick borrowed from the shotgun shooters),

probably due to the kit required and whilst the shotgun shooter often has a few poles and a T-bar, the airgun hunter may only have plastic decks. We'll come to decoying later but the intention and basic reason to use any decoy is to give the bird a false sense of security. It sees what it thinks are its brethren and has the confidence to come in to join them.

Although I prefer to sit and wait within range of an established natural sitting tree and wait for the birds to arrive, there are times when it can be beneficial to use a few carefully placed decoys in this manner to pit the odds in your favour. The intention in using these birds is the same in theory as why decoys are used on the ground; it triggers the bird's flock instinct. Where it sees others, it presumes that place must either be safe or there's something there to interest them. The difference in this example of using decoys being that the birds are 'lofted' up into the trees, and birds flying over within range see these plastic pretenders, and drop in to join them in what appears to be a nice cosy area to rest. The method is a simple one as long as a few basic rules are adhered to.

First, the decoys are placed on a T-shaped cross-bar, but they must be secure as you don't want to have to keep bringing the birds down to re-adjust them because they've drooped or shifted into an unnatural position in the breeze. Lofting poles are usually 5 – 6ft in length and made from aluminium, painted green to disguise the shiny alloy. They have a spigot at one end that fits into the next, where a spring-loaded pin locks the poles together. The next procedure is a bit tricky, especially if breezy as you loft the arrangement higher. A tip is to find a fork in a branch to use as a rest then lift the first pole with the T-bar and decoys attached. Once high enough, the next pole can be slotted into the underside of the first and this pushed further up until another pole can be inserted into the underside of this. Once the required height is achieved the decks should be positioned facing into any breeze and the pole leant onto the tree and pushed into the ground for added security. Don't be tempted to loft them too high as decoy birds obscured with a few branches look very realistic and a pigeon's keen eyesight won't miss them in the bare branches. Anyway, in a breeze or when resting up, woodpigeon tend to sit lower in the trees.

There are decoys that have eyelets on the back that are used for hanging the birds onto branches with wire. Alternatively, fishing line can

be tied to a brick and the brick thrown (or catapulted) over a branch. The brick end of the fishing line is then tied to the eye on the back of the deek and the bird pulled up into a position in the tree with the line being secured to keep the bird in place. Although this method means you don't have the encumbrance of carting lofting poles, it's a poor alternative as you need a calm day else the birds will likely swing unnaturally on the line or wires. I mention the method here only for reasons of thoroughness.

Hide building – Hide Shooting

Of all hunting methods, hide shooting can probably be classed as one of the most productive, but only by having a very good knowledge of your shoot will you be able to select the best area to build a hide to gain the best from it. These 'buildings' can take the form of the simplest structures of a framework of thick branches leant against a backstop such as a large tree trunk or thick hedge, using extra foliage for front cover, or a few hide poles draped and surrounded with camo netting or even permanent sited structures resembling little purpose-built bungalows.

Alternatively, natural cover can be embellished and made more impenetrable to quarry with a suitably patterned, well-placed piece of quality camo netting. There are even commercially available portable hides. All types will be detailed later and all have their uses. Suffice to say, a hide is often more substantial than just throwing a piece of camo netting over the surrounding foliage or your body, even though as you've read previously the latter can at times be very effective. The reason being that modern camo nets, both in pattern and design, are far superior to what was once available. Choose wisely and you really can be hidden from view even in places quite scarce of natural vegetation, and that's the main purpose of any form of hide; to allow the hunter to get within range of wary quarry in situations where there is little or even no natural cover.

Where, When and What Type

One of the major considerations of choosing the hide position is where the sun will be in relation to the time of day you'll be shooting. I know of more than one person who's built an extremely good hide, got into

position only to discover the sun coming up to rise in their face and stay shining at them all morning; an ideal shooting position for dusk, but at dawn – big mistake. So, firstly plot where the sun rises and sets on your shoot, including where it will be most intense midway through a bright, sunny summer's or even winter's day. Remember, the sun in winter can be even more harsh than summer, and don't build where the sun in summer can keep baking down on you – you'll swelter inside. You should be avoiding this already, as you search for an area that affords natural shade to build the hide. You'd be surprised when you look around an area at how many places fit this description due to surrounding bushes and/or the position of nearby trees.

Once you've established the basics, observation, which has been dealt with previously, will have given you all the information you need on the quarry activity on your shoot. Preferably, the hide should give you control of the shooting situation, so you are well within range of the quarry targeted. Once you've taken everything into consideration, it's time to build the hide.

Unless building a permanent hide, the first important factor to address is to judge how much the building of it will disturb the area. Some quarry will tolerate quite a reasonable amount of activity whilst others won't want to see you around at all. Similarly, depending on species targeted, you need to take into consideration at what time of day you undertake construction and how long you take in building the hide. For instance, if building a semi-permanent hide within striking range of an established woodpigeon sitty tree, then build in short sessions and use sparingly. Don't use it every time you go out on your shoot, no matter how tempting. However, build a hide near an established crow roost or feeding area and you'll be lucky to have more than one, or at most two sessions before the crows will move on. If it's a field they use for feeding, they soon wise up and just move further out into the field, and infuriatingly always just out of range. A tip here is to build the hide near the trees they use to sit before dropping into the field to feed, but I'm sure you're now realising, winged vermin are always more confident off the ground.

Alternatively, rabbits can often be quite quick to accept even a crudely built hide in their area. Woodies are more aware, but the corvid family

really will notice any structure so the hide needs to be the best you can build.

Obviously, if it will only be of use for a short period, or if you have a short period of time to build it, you'll need the most basic of structures, but always remember that any hide is only as good as the amount of concealment it affords the shooter inside. It's always better to overbuild a hide even if it does take that little extra time and effort.

If building near a warren, build when the rabbits are least active. If possible have another hide built so you can alternate shooting positions. If you're tactful you'll be able to cover most of the major entrance and exit points from both shooting positions, but when the rabbits decide to move on because of over-shooting, they'll be gone as if overnight. A semi-permanent hide – say built for decoying woodies you've noticed that are feeding over a particular area – should be quick and easy to build. Some hides, especially for rabbits need only to screen you from the forward position. There are even portable camo screens with poles attached that stretch out to form a wall of cover. If this will suffice for a few sessions, then they are very handy, quick and simple to set up.

Incidentally, a hide can be built anywhere, including around the farmyard, or even within a farm outbuilding or barn. If building around or in the barn, then obviously certain factors need addressing such as other people's safety and the fact that they need to know you're there and when you are there shooting. There's more on building hides around the farm in the relevant section, but I mention it here to stress that it's not only over open land where a purpose-made, hidden shooting position is of use.



Hide shooting can often be the only way of getting within range of targets

Size Matters

Spend any length of time in a small and cramped hide and you'll not want to use it again. The hide needs to be large enough to accommodate you and some essential equipment comfortably, be roomy enough for you to move around (within reason), and take different aiming positions, but it also should be small enough so that it doesn't overly stand out from the area it's built in.

When looking to build any hide, ideally look for a natural recess or gap in a hedge line; one that you can blend a structure back into. It's always better to build around a natural feature. When you've chosen such a position sit on a hide seat in the area that would be the centre of the hide and, using the rifle, swing through an arc of fire. If building with hide poles, place the front poles that will form the framework to the sides and forward in relation to your sitting position so you have a comfortable and acceptable field of view. It needn't and more often than not won't be 180 degrees, but do allow yourself room to manoeuvre to shoot. Also,

you'll probably have your gun bag, some other utility carryall such as a rucky and small hide chair in there with you, so allow for this when building the hide. Once you've decided on the internal size of the hide, don't forget to allow yourself enough headroom when sitting. Use an extendable hide pole and stand it next to you at head height, then extend above that whichever height you feel comfortable with, then you can use this as a yardstick when building.

Also look to see if there are points that could be useful to shoot up into. If there aren't any and you only have the forward area as a firing zone, then begin building. Clear what will be the floor area of any runners and straggling branches from the hedge or cover near where you're building. The reason being that you don't want to trip on anything while in the hide, and you certainly don't want to stand on anything that may snap to cause noise, and kneeling on brambles or nettles is never recommended. If you're going to sit on the floor rather than a hide seat, clear the area of stones as afterwards you can sit on a small camping mattress, preferable green but definitely a dark-coloured one. This will keep out the cold and wet, and help to prevent you from getting a numb bum, but do make sure it doesn't cause any noise when you move.

At this stage, consider which position you will use as the entrance. This should preferably be from the side and to the rear, but discreet enough so you can drape a piece of camo netting across as a door blind when you're in residence. Equally, though, it needs to be large enough for you to take equipment in, and for you to enter and exit with ease.

As we are now at the building stage, you'll hopefully recall in Hunting Accessories that I mentioned the kit that would become useful once you progressed as a hunter. This is one such situation as for hide building you need a few basic tools and equipment. Firstly, a pair of garden secateurs, a wood saw, twine, camo tape, and the obvious such as hide poles and camo netting. If building a permanent hide, add to that your toolbox including hammer and a plentiful supply of nails, but this is the extreme; for most structures it's the basics you need and always the basics of correct hide-building that you need to remember. Another factor to consider is that before you even think of building a hide, although you have permission to shoot on the land, don't take it for granted you can go building on it. If it's a permanent hide you'll obviously need the

permission of the landowner, but in some counties they can even be classed as a dwelling. It's common courtesy to ask the farmer if you can construct anything on his land, and more times than not he'll gladly agree if it helps you to eliminate more vermin. Also, he might just have a few pieces of material that could help in its construction such as old fence posts and even railway sleepers, the latter being ideal for the building of more substantial hides.

Here, I'll stress the importance of the hide needing to have a solid, impenetrable back section. If not, quarry can see you clearly as you move inside, as you cross the chinks of light passing in from the back. This is where many new to hide building make their first mistake. It's all well and good wanting to be able to see all around your shooting position, and if shooting from natural cover you can often achieve this, but it will be to the detriment of total concealment. So, when hide shooting, there are sacrifices that have to be made for the cover it affords. It follows that the hide needs to be built with the base knowledge from the outset of which way you will be facing to shoot. It's here that you'll need small openings in the foliage to shoot from, or gaps in the netting you poke the barrel through. Note here not to have too many shooting positions. It may seem like a good idea, but if you can see out, wary quarry is just as likely going to see in and the shooting slits or holes you make shouldn't be overly large; no more than fist-size in a hide built from natural cover. Far better to have them closely covered with camo net with the intention of just poking out the barrel to shoot. This means less foliage is needed so as not to obscure sighting the target through the scope, but enough to conceal your movements – a case for compromise.

Now we come to choice of cover materials for the hide, and net types. Firstly, natural cover: If you find dead branches lying around, use these and if possible leave them without trimming. Nothing looks worse than a regimented row of cut sticks. For weaving into this framework use weed trees of alder and hazel, but whenever possible, as camo netting has become so much more advanced, I often prefer to use extra natural cover only to embellish the netting.

As for netting itself, the best nets in my opinion are what are known as cut-leaf, open weave. These already have openings wide enough for you to shoot through and the leaf design has a natural break-up effect

around the open weave. This means maximum visibility outwards, allowing you to gain a sight picture while the shooting opening is still quite concealed. Once built, stand away from the hide and visually check to ensure that there are not any unnatural-looking straight edges formed by either framework or netting. If there are, disguise them by using natural foliage you can add from the surroundings. Also, when gathering natural foliage, take it from a reasonable distance away from the hide rather than at the sides. If you don't, this will make the area look less natural and will have the hide stand out rather than blend in.

What you build depends not only on the time you can spend in construction, but also the time of year you've chosen to construct it. For permanent hides, it's widely accepted that early spring or even earlier are prime times as then, when the surrounding foliage springs into life, the natural growth actually adds to the hide, and over the years, if you keep a hide maintained, a very natural look will eventually be achieved. So, let's look at the hide options to build or buy.

Natural

A framework is always needed and like a house has walls, these are the supports that hold the structure up and give it strength, so use thick branches. Once in place, as you're going to use what nature provides, dead branches that easily snap off or are found on the ground are useful for shoring up at the front, sides or even building a roof, but if you need to cut flexible branches for weaving into your framework, you need to know which trees to cut. It's not good practice to cut everything you see that looks useful as, in effect, you're damaging the woods you should be there to protect. If you're going to use live trees, know which ones that are known by some forestry workers as 'weed trees'. These include most soft woods such as elder or hazel as they common in most areas. These woods are nice and flexible, and you'll find enough straggly branches to use in the construction of your hide, but take note to ensure that the leaves stay the natural, dark way up. Most leaves have pale undersides and even this can be just enough to deter quarry from coming in closer.

If the farmer has removed any old dying trees or just cut back an area for any reason, this is the time to ask if you can use the dead wood as he'll only probably burn it for disposal. You can, in fact, do the farmer a

favour in clearing the cut wood, and although this is mainly a natural-built hide, if necessary I'll also use old camo netting as extra concealment. Incidentally, if you've left a natural hide for a while it'll more often than not need some repair, and you'll possibly also notice the dead wood will have dried up and look different to the natural live foliage growing around the area. In that respect, a bit of titivation with some fresh greenery will soon have it spruced up and looking like new.

Semi Permanent – Using Poles and Netting

This is the most popular and versatile as you can have a hide erected quickly in any area you choose. The ability to build where you like is made all the easier thanks to the large selection of quality hide poles and effective camo netting easily and commercially available. One item definitely to add to the kit are cross support bars which means a firm framework for the roof can be formed once the camo net is draped over. This will help prevent the net sagging down into the hide. Hide poles can be lightweight or heavy-duty, standard fixed sizes or extendable. Some come with kick plates for pushing into hard ground. So as you can see there's a large variety to choose from. All are useful in various situations. Similarly, there are many types and different patterns of camo netting to suit the varied terrain; usually these are either autumnal colours or more 'green heavy' for summer foliage. There are sand-coloured nets, and these are ideal for using over stubble fields, more often by pigeon shooters and draped over a few hay bales. You'll often be building against a hedge so use the appropriately coloured foliage netting. I've already mentioned my preference of net design but with the additional use of natural vegetation, a hide such as this can be erected in no time at all.

A word of warning though: When you add foliage to make the hide look more natural, don't weave the foliage and branches into it unless you want to spend a day removing straggly branches from a net you need somewhere else shortly afterwards. Only do this if it's to be left in situ for a fair amount of time. If not, lean the natural foliage against the netting – it's just as effective.

Permanent

The beauty of a permanent hide is that it can be built to a much higher standard and in some cases be able to fully withstand the elements. Also, as the seasons progress, if built near growing hedgerow of bramble or hawthorn, nature really will soon encroach onto and around the structure blending it into the natural background, and one built in a well-chosen position can often offer all-year-round sport. The ideal places to consider for these hides are within range of where quarry crosses from one area to another. For positioning, the usual type of areas such as natural gaps in hedge lines that might accept a hide into the surroundings as a continuation of the hedge, are ideal. As it will be there, in some cases for years, you need to build from much more substantial materials. Thick fence posts make an ideal framework and should be driven well into the ground. The lower base surround of wood ideally needs to be made up of substantially-sized logs or old railway sleepers. They can also usually be much larger than semi-permanent hides, and even have enough internal space to accommodate two shooters. A seating arrangement such as a small bench can easily be made and I certainly recommend that you build a fixed strong roof of either weatherboard, or shiplap construction, with a slant to allow rain to run off. You can even build a proper doorway, but let's not forget the outside. This should always be repaired to suit the seasons.

No matter what the main construction, even if it was made from breezeblock, the outside still needs to resemble the outside vegetation that surrounds it. Think along the lines of a birdwatcher's hide, but one that blends in with its surroundings. The longer an object is in situ on the landscape, no matter what it is, be it a hide, tractor trailer or discarded oil drum, the more it will be accepted by the local wildlife. This is a major bonus of permanent hides that work in the hunter's favour as they are there much longer and therefore have more time to be considered just part of the scenery.

Portable Hides

The main benefits of using portable, or as they're often known 'pop-up' hides, is the fact that you can erect a hidden shooting position in literally

seconds. Some even fold down into a carry bag the size of a very large pizza. Arrive on the shoot, pop-up the hide and use it.

If you've chosen a bad position or you spy a better area to shoot from, it can be moved just as quickly, so you can constantly take quarry by surprise, vermin never knowing where you could strike next. These hides have given me some excellent shooting and have proved to be very usable for many hunting situations. Set up and leave it in an area for quarry to become used to it for a few days, arrive before dawn, get settled into position and reap a few hours of quick-fire action. They come in a small but useful variety of camo patterns and designs. Whichever you choose, all have windows for shooting out of that can be opened or closed depending on how much or little you want to see out. All come with pegging points, guy ropes and pegs and most are quite secure until it really gets windy. If this sort of weather is forecast best to take the hide down, rather than leave it set up, or a good blow could see you traipsing over the other side of the fields to collect your hide next time you arrive to use it.

Another downside is that these one-man hides tend to be quite small and cramped inside, good for short sessions but you'll feel the strain on your back the longer you sit in there, waiting to see what is going to appear. They're always handy for when you spot an area where pigeons or crows have suddenly started feeding over, though – so don't discount this option.



Pop-up hides are extremely useful when you require a fully covered shooting position

The Hide Shooting Technique

Once you've finally built the hide, depending on type, a few words on maintenance: If it's a natural hide or even a permanent one, before entering give it the once over. Check to see that it still blends in with the surroundings. Hopefully, vegetation will have grown up in front or over your hide helping to make it blend more into the surroundings. If all's well, fine. If it looks a bit shabby, give it a spruce up. If you haven't used a hide for a while certainly check that the shooting points aren't obscured. Embellishing slightly with a bit more naturally growing cover is no bad thing, but to the point of obscuring your vision – no way. If the foliage needs trimming back then do so with secateurs or adjust the netting accordingly. After that check that the back is still impenetrable to light. Incidentally, if you're after the dawn feeders, you'll almost always have to be in and settled a good half hour to an hour before dawn.

Before even starting to use a hide, a routine check that I advise shooters do, and one that can be done on a day prior to shooting is to range certain objects from the shooting position. You can do this from inside with a laser rangefinder, or purposely pace out and set markers at different positions from the front of the hide. Markers can be stones or even wooden pegs. You can be as frugal or comprehensive as you prefer, with range markers set out at your set zero, then at 5yd increments closer and further out from this mark. I'm sure you will realise the benefits of this and that ranging can be used when just lying prone in ambush near a warren.

However, specifically in relation to hide shooting, depending on the field of fire you can comfortably target, you'll possibly want to set out markers to the left and right of the hide as well as directly in front. These will form a semi-circle around the front of the hide. Don't put out too many as they'll become confusing – too few and you'll not get a reasonable indication of a range should quarry present itself too far to the left or right of a set range marker. The way you set this out is up to you, but try to envisage the effective shooting area you have as a block grid map of set ranges. When quarry is within a grid reference on the area, you'll know the approximate range to target. Once you've assessed the ranges, it's time to use this knowledge and the concealed shooting position you've now created.

The two major requisites that will aid success and your enjoyment of hide shooting are the need to be organised and comfortable. You're likely to be in there for some time, so set out the gear you need so everything is to hand. That way you'll not have to rummage through a bag for extra ammo or to get a drink. Also, there's nothing more infuriating than settling down in position, waiting patiently for first light, and then suddenly to remember something you've left in the car. As you progress learning and developing your skills as a hunter you'll soon realise the accessories that are useful to you. We've dealt with the general accessories available in the relevant chapter, but certainly as you do more hide shooting you'll know which accessories suit the task.

Obviously, unless you've built-in some form of seating, or are sitting on the ground, a small lightweight, portable folding hide seat or pigeon shooter's bag combined plastic tub seat will certainly be a must. The

latter being very handy as these holdall carry bag/seats will accommodate poles, netting and your deeks. A small rucksack or carryall will still be needed to carry extra ammo and other bits and bobs such as a flask, food, extra clothing ... anything you might need during your stay as you work under cover. Incidentally, although the hide should ideally be built in the shade, inside it can still get hot in summer and certainly cold in winter. As you're not moving around much, in winter it can be very cold indeed, so take appropriate drinks depending on the time of year, and certainly consider a soup flask for some warming nourishment in winter. Don't be tempted to take too much gear into the hide as what at first may have seemed to be a fairly roomy construction can soon become crammed with kit.

Different shooters want different things in the hide but there are basics. Have a checklist so you don't forget something obvious. If you've a bad memory, there's no shame in checking the list before you start a session. It'll certainly be a better proposition than having to leave the hide for something you've forgotten – usually just as a woodie or two are about to drop into the area you're decoying over.

In fact, leaving the shooting area to retrieve a kill can be infuriating. If dropping birds from trees and the grass is quite long around the base you might get away with leaving them. Sometimes, it'll be a necessity and need to be done immediately after the kill, especially for birds that fall unnaturally in the open to be seen by others flying in.

However, just as many times it pays to hold off a shot for the fact that the bird, or for that matter a rabbit, lends itself to being a natural decoy. A scraggy, lone feral pigeon in the trees isn't that worthy a target, but wait a while and it could soon be joined by woodies. Similarly, a crow you hear just out of sight behind or directly above isn't worth spooking by undue internal hide movement as it'll probably soon drop down into the field in front, especially if using baiting-down tactics. Also, it can possibly attract others into more suitable shooting positions. That brings me to mention that even though you are supposedly fully hidden, don't think the cover of the hide allows you to move around freely; try to stay as quiet and still as possible at all times. This is often known as 'hide discipline', adhere to it and it will pay dividends.

Now, even though you're hidden I recommend the use of full camo wear including facemask and gloves. No matter how good the hide, no point in taking the risk of blowing it due to your leading hand flashing white across a shooting area. Don't go looking out of the hide showing hands or face because even though concealed, your movements will be noticed. Too many get impatient and look over or around a hide, even putting their face right up to a shooting point – don't. It's easy to become impatient but this is a waiting game. Remember, hide discipline at all times.

When it comes to rifle choice, carbines are the optimum rifle type as they are suited to manoeuvring in smaller spaces. Even so, when pushing the rifle through to shoot, do so slowly and only far enough so you can sight in on the target. Only the very end of the muzzle should need to poke through as sometimes you don't need to push the scope right up close to the inside of the netting or front cover foliage to see out. If so, this is also a situation when once again the front scope lens can be a cause for concern, even on dull days a bird, especially one as wary as a corvid, can see the sky reflected off the front lens and even catch a glint from the finish of a rifle barrel. Use an amber scope cover or piece of loose 'see-thru' camo material wrapped and secured with a rubber band around the objective lens to prevent this.

I recommend camo tape around the silencer and maybe a bit on the barrel immediately behind it, and if using a rifle with a buddy bottle, cover that as well. Slip-on covers of brown or camo can be bought for the major rifle models, and I'm sure quarry can spot the black outline of a barrel or even tip of a silencer moving in or against camo. No use blowing it for something so trivial. Another bonus of shooting from a hide is, you often have more time to take the shot. Without fear of detection you can take more time in waiting for the quarry to present itself better, so you can put the pellet smack bang into the kill-zone.

As with other techniques, you hunt with your ears as much as your eyes. The magpie will often noisily herald its presence, to the more discreet rustling of a rabbit. Alternatively, the sound of it plucking grass from the ground can be quite loud and tell you there's one close by. Another give-away is the clapping of a woodpigeon's wings as it lands in

the trees, and crows usually can't help but start harshly cawing to see if one of their own is about.

Depending on the size of your shoot, the permission granted and the length of time you've been shooting over the area, I'd advise most hunters to construct at least one permanent hide and maybe one or two semi-permanent ones on their shoot. More hides means you can rest areas and rotate the use of the hides so as not to overshoot an area.

Now to the subject of using a rest in a hide. An old camera tripod is useful for this. A camera beanbag or shooting beanbag on the head of the tripod will allow you to slide the rifle back and forth and swivel it right around. If you had the rifle on a bipod, even with extended legs and swivel facility you'd not get this level of movement. Then again you could use a small compact monopod.

Going for a slash? Sorry to sound crude but it's a natural bodily function. You can bet Sod's law says you've waited three hours and as soon as you leave for a call of nature, quarry will appear in a position you could have drawn an easy bead on. A funnel into a length of plastic pipe, set to the back and running from inside to out, is better than using an old container and throwing it out the back door. I know it may sound unpleasant but you need to take these things into consideration. That's hide shooting.

Decoying

As the name suggests, decoying is a way of attracting (in some cases, distracting) a bird with an imitation known as the decoy, or deek, of the same species, so that the intended quarry targeted is brought within range. In the case of the woodpigeon, the bird most associated with this method, attracting them down to an area is nothing new, as shotgunners have been doing it almost since they first seriously began targeting the crop guzzlers. Alternatively, using a crow deek positioned near suitable bait, such as a slit-open rabbit, works to give the corvid a sense of safety near the food, and the same applies for magpies. For corvids, there is the alternative decoy method where a bird is used, such as a little owl or raptor, placed in their territory or near a nest sight to annoy the corvids to show themselves as they mob the intruder. Those peripheral and off-

shoot decoying methods will be dealt with as we come to the relevant section, but, there's no doubting that both methods work well, at the optimum times of year in the right locations.

First the use of decoys for our most popular pie filler – the woodpigeon. The theory behind the method is quite a simple one. Arrange a pattern of decoys in a field to look like feeding pigeons so the real ones flying over will come down to join them. Then hole up nearby within striking distance, more often than not well hidden in a purpose-built hide. Eventually, pigeons flying over, see the imitation birds, assume their brethren have found some grub and come down to join the feast. Sounds easy if you read it quickly doesn't it? Well, obviously it isn't, because unlike shooting with the shotgun, as you're using an air rifle you need the pigeon to land and stay still long enough for you to take a shot. This is the main problem that faces the airgun hunter using this technique. If they've come in en masse, always let a good few settle amongst the deeks before choosing a target. There are times when small groups or even lone birds will land with more confidence, and as I often say, fewer eyes to potentially see you is much better than numerous ones. So now, let's go through the stages to set up the woodies for what is, in effect, a most crafty deception. As with other hunting methods, observation is of major importance. You need to watch and learn where the pigeon feed, but more importantly, learn the regular flight lines the birds use to and from feeding areas. Once you've established a pattern of behaviour in your local woodie population you can make a start, but take advantage of any sudden feeding areas you observe the pigeon use. They might even be off a regular flight line because they've found 'lays' in the corn or barley. These are flattened patches caused by wind or rain, and even tramlines caused by the tractor, left after spraying, are wide enough for the birds to drop into. Watching from a distance you'll see the woodies drop like stones to disappear from view gorging and ruining more of the crop field. If left untroubled by shooting attention, woodies and, of course, crows and rooks can strim crop fields from inside out and vice versa. Like other methods of hunting, make the most of the opportunities you see and get over there as soon as you can, set up a hide and put out the decoys. That is if you can get to the position without trampling over precious crops yourself! If you can't, you need to wait

until the fields are harvested. It's not only a method for the autumn, though, as decoying can work at any time of year when crops are cut. You can even decoy birds down onto the barest set-aside field. A few decoys and hide-building material will get you started. If you get the bug, you'll soon be buying all sorts of paraphernalia; floater poles, bird cradles, possibly even one of the electric rotating pigeon attractors or 'whirligigs' as they're often referred to. Let's take a look at basic decoys, the types available, and patterns to set them out in.

Although the art of decoying hasn't changed much since its early use, the types of decoys available to the modern shooter most surely have. In fact, back in the very early days of the sport, keen pigeon shooters made do by making their own from bits of wood and feathers or either used dead birds, or carved wooden ones. Trouble was, you had to either shoot a few first to set out in a pattern or lug heavy wooden ones on to the shoot. Fortunately, the decoys you can buy today are much more user-friendly, and are either plastic full body, plastic or rubber shell, or EVA-foam, outstretched wings, silhouette-types. The latter are for use as floaters or to put on a whirligig machine if you haven't already bagged a few birds to use as naturals. Methods of usage will be outlined presently. Incidentally, there are plastic decoys that are treated or flocked, this is the term given to the fact they're covered in a soft, felt-like material or 'flock'. This makes them very realistic-looking and in situations of bright light and direct sunlight, they can often work better as they don't glint or shine unnaturally. In fact, flocked decoys are now available for most species.

The Art of Deception

Decoys should be placed out in the field under an established flight line, and set out in little groups or patterns, as they're known, always facing into the wind. Don't position them too close to your shooting position, but obviously keep the nearside edge of the pattern well within range.

Unfortunately, birds often come in textbook fashion but veer away because there's something not quite right about the set-up. Maybe they caught a glimpse of you, the hide doesn't blend in well enough with the area, or the decoy pattern just isn't quite right for the day. However, you'll not have long before woodies do land, but they often don't hang

around long before they realise their mistake. As soon as the bird settles and raises its head, take the shot, slightly poking the muzzle of the rifle out of the hide netting; an adrenalin rush of a moment as you'll be willing the bird not to move or catch sight of you.

At first, this shooting technique can be very frustrating but very challenging. If all goes according to plan, the shot bird will have dropped and is hopefully not showing breast feathers or with wings outstretched. If it has, leave the hide so as to retrieve it, or better still, if it's not during a warmer month set it out as a natural decoy. I mention the season as birds will soon get fly-blown if left out in the field. For setting out dead birds as decoys, you can either use a special cradle that supports the bird on the ground, or simply tuck its wings into its side and lay its head out at a right angle, or better still prop it up using a chin stick. Don't have the head stuck up too high as this is the posture of an alert or unnatural-looking bird. When used correctly, shot birds certainly do make the best decks.

Incidentally, even though hide building has been dealt with already, the importance of a hidden and well-constructed hide can't be overstressed. It must obscure you from prying eyes, especially from above as birds fly over, but, so good are the new camo nets that I've had birds land in the pattern spook at something, or they're twitchy from past experience and fly up into the trees on my left or right, clearly visible from my shooting position. Due to their position in relation to the hide, they can't see into the gloom beyond the net as you've got a full dark-colour backdrop – the ground. Many times I've taken them from the trees shooting through the net roof of the hide.

Now, as this is not an in-depth look at advanced decoying techniques, but more a guide to help you try your hand at the method, I recommend that anybody who seriously gets into this form of airgun hunting gets a quality book on the subject of pigeon shooting. Knowledge is power in this game and even then, the reason behind employing certain tricks will only become apparent after much experience.

The basic patterns I use are variations on a theme that most shotgunners use, and that's what can best be termed as a loose horseshoe, a staggered L-shape, or a pattern in the shape of a comma; all so named due to the appearance of the pattern from above. In all cases, the decks at

the front of the pattern form a barrier to the front so incoming birds drop into the open space behind, but watch how birds react to the pattern. Have a bad pattern out and they'll let you know, they'll hardly give the area a second glance on their way over. It could be that they're determined to get to a specific area, but often a good deck set-up will turn them in. So don't be scared to experiment with the pattern, slightly enlarging it, narrowing or even changing its shape.

Also, when setting the decks out, if there is any wind, face the birds into the breeze. Don't make the pattern too regimented or have birds too close together. Have some at a slight angle to the others, some with heads up and some with heads down as if feeding.

Now, specific to this form of shooting with the air rifle, and not to cause problems further down the line, the decoys shouldn't be overly spread out. I set them out so that the closest birds in the pattern are 20yds and the furthest edge of the pattern of birds are at approximately 40-45yds out from my shooting position. The pattern itself is no longer than approximately 40yds from front to back. The reason for this is, when you're in position, even in a hide, movement is your biggest give-away. Unless you're totally concealed, even carefully moving the rifle to the left or right will spook them and up and away they'll go. Using a more tight pattern usually brings the birds, or at least a reasonable amount, down as close as possible to where you're ready to train the scope. This should be towards the back of the pattern. This is probably the major difference between setting a pattern for air rifle shooting instead of targeting them when using the shotgun.

Remember, of all quarry, woodies are amongst the wildest, and unlike a rabbit that knows it can bolt to run for cover, the woodpigeon on sensing, hearing or usually seeing anything untoward will just fly up and away – and not always to a tree where you can pick it off. It won't sit there thinking on the ground. This means shooting is very demanding. Often, as soon as the bird lands and stops moving you've got to take the shot. However, the plus points the air rifle hunter has over the shotgunner are that shots can be taken at greater distance and using a silenced airgun there's very little sound to disturb the peace. In fact, many times I get the bonus rabbit or two that comes out of the nearby cover to my shooting

position while pigeoning. I presume they see deeks in the field and it gives them confidence to come out as well.

As an alternative, and whenever possible, I relish the opportunity to shoot over decoys from natural cover. It'll be obvious that there aren't many times you will find an area with an ideal shooting position ready prepared such as this. Obviously, you need to wear full camo wear and it needs to be somewhere where you can get right back into the hedging at the side of the field, under overhanging trees to use the hunter's friend – shade.

If you've found an ideal spot where you don't need the encumbrance of a camo screen then not only have you been very lucky or been vigilant in your observation, but you can also adopt a shooting style very similar to the shotgunners. Once you spot a bird or two are coming into the decoys, and you really do only want them to come in small numbers for this technique, put the butt of the rifle into your shoulder and follow the bird keenly with your eyes as it drops into the pattern. As it is landing, slowly raise the rifle, pointing it in the direction of the bird and drop your head onto the rifle cheekpiece to sight alongside the scope. Incidentally, this is the only time the bird will tolerate movement from your position, although you should strive to keep it minimal, as its eyesight at this moment is concentrated on the landing area.

If you've smoothly followed the bird's path on landing you should only have to shift the rifle slightly to sight through the scope and the woodie will be in the sight picture. This is the ideal scenario as there's nothing worse than waving the rifle around trying to spot the bird. If you haven't got it in your sights, carefully look to the side of the scope, find the target, line up the muzzle and look again. Hopefully, the bird won't have spooked, but as they're so inconsiderate, it probably has! It will certainly by now be walking and moving, wondering what's going on. This is the most nerve-wracking moment because it'll feel like an eternity until it stops still or lingers in a feeding position long enough for you to line up on the kill-zone. If hide shooting or using alternative cover, I recommend that you take heart/lung shots as believe me, head shots are almost impossible unless it does what I've now termed the 'vacant stare'. Watch woodies feeding, or even when in sitty trees, every so often they just stop with the head slightly cocked to one side with the most vacant

look in their small, yellow-rimmed, black-spot eyes. However, don't be fooled, as the bird's anything but vacant; at this moment it's using all its senses to take in everything going on around it. That's why you can't be moving around or even wavering with the muzzle. If it catches sight of you, a glint off the barrel or the scope lens and it'll be off. At this point, you should be on target and it's definitely only during 'vacant stare' moments that I'll consider taking a head shot on a woodie that's landed.

There are also times when you can get back in heavy cover, or under a camo net shooting from a prone position. This is one of the only times shooting lying down, when I often prefer not to use a bipod because the pigeon can land anywhere and, for once, the bipod would be an encumbrance.

In these situations, some natural cover could well be needed to be cut from foliage placed in front, anything so those keen eyes don't spot you as the woodies pitch in.

Incidentally, if lying prone, or shooting from a ditch at ground level a woodpigeon doesn't stand very tall as a target. To be most flexible, you should whenever possible find a position where you will be slightly above the shooting area. In this situation there's no following the bird or birds as they come in; it's 'head down' and let them land, and then slowly sight a target and take a shot.

It's worth mentioning that if the birds are not coming to decoys, also keep your eyes peeled as many times a lone buzzard, kestrel or sparrowhawk will spook them. If so, it's time to switch plans. I'll usually opt to go for a spot of opportunist shooting because if they're really twitchy they'll not land in the pattern when there's a predator around.

Nothing's ever cut and dried with any hunting technique. It can be a long wait or at others you can have just put out the deeks, turned on the pigeon machine and entered the hide when they come flying in; and that brings me nicely to the subject of rotating pigeon machines, or as they've become affectionately known 'whirligigs'.



Decoying woodies in autumn is now as traditional for airgun hunters as it is for shotgunners

Magic Roundabout

I first became interested in the use of pigeon machines through their use in shotgun shooting but primarily, as an airgun hunter, I noticed a few things pertaining to how the birds reacted towards them. Admittedly, when the machines were first used, birds absolutely zoomed into the area. Presumably, they work because of the movement of the whirling birds on the machine, in theory resembling birds circling maybe to land or lifting off jostling for position over an area heavy with feed. The pigeon machine is used with traditional deeks on the ground and where you set it in relation to the pattern is personal choice or judged by experience. Most set it to the rear and to the side. Now, the thing I noticed was birds that snuck in under the noses of the shotgunners without detection would actually fly at the machine and land underneath. Strange behaviour, or some natural feeding characteristic, or both? I prefer to think the birds come zooming in to get under the flying birds circling above, to get at what is presumably a food-rich area underneath. Birds that do this will often sit longer, possibly because they're puzzled at the birds that are still

circling overhead and the fact that there's probably nothing much of interest where they've landed.

So if using one of these machines, watch for this, but also watch for birds landing more conventionally into the pattern. It's now generally accepted that the machines, in some areas, are losing effectiveness. I think this will come and go with seasons and as new birds come along with each and every year. In other words, like other quarry species, some birds have learned to stay away because they associate them with danger, they've possibly been shot at in the past, but are ones that have been lucky enough to be missed. The pigeons soon wise up. If you're keen, get yourself one as they don't cost the earth and at times they certainly will work, but as with most things, experience will show when, and when not, to use them.

Incidentally, the rotary pigeon machine often attracts crows. Unfortunately, crows tend to lazily float over the area watching more than the sometimes foolhardy woodie, and can infuriatingly glide off just as lazily as when they first arrived. However, let's leave the machines, and return to more traditional decoying methods. A crow decoy placed well back at the outside edge of the birds can often bring woodies down to a pattern. This is known as a 'confidence deek' and works to give woodies a feeling of security, as it does to fool the crow that one of its kind has found something edible. It gets the nickname of confidence deek as every animal knows how wary the crow is, and if woodies see a crow looking comfortable on the ground then the area must be safe.

Another useful device to use with decoys is a floater. This is just an extending pole that has a cradle on the end. Onto this you set a dead pigeon with wings outstretched as if it was floating down to join the others on the ground. You can also use an EVA foam silhouette deek if you've no naturals. You can even mount a crow on the floater. Whichever you use, in any sort of a breeze, they bounce and sway about, resembling a bird about to join the flock below. Needless to say, it pays to position the floater to the back, even quite well behind the main decoy pattern, depending on conditions and the area being shot over.

Come October, those that have survived will have probably seen a lot of pigeon machines and been shot at by traditional methods so will associate them with danger. This is where a very small tight decoy

pattern and a couple of floaters can be very effective. While on the subject of floaters, it's this movement that attracts other birds in when using these decoys as the wind raises and lowers the floater giving it a natural look. That's why you can often see these decoy set-ups referred to as 'bouncers'. You can now get electronically-operated floaters that even flap their wings as if landing, and some can be set with a timer to flap every so often. Also there are 'peckers' which, as the name suggests, peck at the ground, operated by battery – all clever stuff, and I'm sure other ingenious deeks will be developed and designed and all will be useful at times. Even simple half-body, shell deeks placed on their stakes rocking in the breeze can often be enough to trigger a response from birds flying overhead.



Great care must be taken when shooting around or near livestock and if they start to get twitchy – stop shooting!

Although at times infuriatingly difficult, decoying woodies down to the air rifle is now amongst my favourite forms of airgun hunting, especially through autumn into winter. I can't describe the buzz you get as you'll need to be out there and experience the feeling for yourself as they fly over, then circle around to take another look at the deeks on the ground. Your heart will be in your mouth as you wait for them to drop

into the pattern. Sometimes they touch down but take off as soon as their feet hit the ground, but they'll do another circuit of the field before returning to land, hopefully this time, with more confidence. Don't try to watch them fly around, just follow them with your ears as you'll soon know when they've come back. It might be the clapping and whistling sound of wings or a glimpse of shadow and dark shapes sweeping overhead, but then they're back and it's your opportunity to put the pellet into the target.

Though using established and traditional decoy patterns are a good starting point and will produce results, experiment with your own if you're not having much luck. One of my favourites is to huddle a small group of no more than half a dozen together near the base of a sitty tree or in a quiet corner of a field. Be in a hide within range and birds often fly in but veer away from the pattern to sit in the nearest tree to watch the area from above, that's if they don't land next to the deeks. Remember, it's natural for the birds to be seen feeding at the base of trees, especially come the autumn into winter when berries, beech mast or nuts are falling. If coming in, but preferring the safety-first approach and landing in the tree, a good bag can be had taking them from the branches in this way. In effect, you've created an artificial but inviting sitty tree. If you prefer, a few lofted birds in the closest tree to the pattern can be used as an added attractor.

Annoying Habits

As mentioned at the very start of this section, another method to use with decoys is one of annoyance. This is used to trigger the attack and mobbing instinct familiar to all corvids, especially magpies, crows and to some extent, jays. The method couldn't be more straightforward as you simply locate a nest area or territory that you've seen birds regularly frequent after feeding, and position a little owl, kestrel or similar raptor. Some have even had success with teddy bears, the target trigger presumably being the big glassy eyes staring out of the trees. You can position the deek on a pole, which I prefer to put close to cover in a position where the corvids will have chance to sit on a branch to call angrily at this intruder. It's at this stage you can pick them off and, of course, it hardly needs saying that you need to shoot from a well-hidden

shooting position. This is also a shooting situation where the use of the suitable quarry call can be employed to agitate the birds further into making a foolhardy mistake. There'll be more on the conventional use of decoys for corvids in the Baiting-down section.

So as you can see, many uses for decoys and I'm sure many will agree that it's definitely a case of 'never leave home without your plastic!'

Baiting-down – Corvids

This is the most popular method for bringing wary corvids such as crows and magpies within range, but in lean, hard times, even woodies, collared doves and squirrels can be brought to suitable bait, as of course can rats which has been dealt with in Quarry Files. As a matter of interest, some reckon they have success using baiting techniques for rooks, but in my experience, the rook is too clever for that and can seemingly always find a meal somewhere safer.

In its simplest form you put out suitable bait, which for corvids is most often a slit-open rabbit, wait in a well-hidden shooting position (usually a hide) and pick them off as they come to the bait.

However, a much more methodical and thoughtful approach is required if the hunter is to reap the most for his efforts, which in the case of baiting-down corvids is the fact that you need to be up well before dawn as the magpie and crow are surely, like their close relatives, veritable insomniacs of the bird world.

To get up to use this method in the depths of winter takes commitment, and it's during this period that the method really comes into its own because like other species, corvids find food harder to find. Don't despair; if you enjoy a lie in, when the birds have reared young it becomes very effective again from midsummer onwards at any time of day. Evening sessions can also be very productive in summer before the sun drops too low.

In fact, starting a baiting campaign again once the birds have reared young can be deadly. Young magpies and crows are surprisingly naïve and can be caught out nearly as soon as they've sampled their first-found free meal, especially if you're waiting to greet them with some lead!

The reason for the lull in early springtime before the method becomes 'killer' again in the summer, is that although it seems maggies and crows are everywhere you look on your shoot, come late February and certainly by early March, both species will have paired off and not be spending as long over the fields looking for food. Much of their time is spent as breeding pairs, rebuilding nests and preparing to rear young, and more and more of these nest sites are in town gardens and cities, a major reason that you now generally see fewer of them over the open countryside.

Incidentally, in some parts of the country, at certain times, rabbits can be quite hard to target and shoot, especially for use as bait. To save the effort or indeed the waste of good rabbit meat, you can use pet food or Chum mixer. Unfortunately, these make easy pickings for the birds to grab and quickly fly off with, so better still, when I can find them, I'll use road-kill rabbits as bait. However, you can try a makeshift bird's nest using straw or scrunched up dying foliage and put out a few hen's eggs. Corvids are used to raiding any nest including ground-nesting birds so it isn't unnatural for them to find food like this. A trick that's worked for me is to use at least one white duck egg with a couple of hen's eggs; the duck egg helping the bait become more visible. Also, a trick is to put down Clingfilm and crack open one of the eggs to expose the contents to make it even more appetising. If there's one thing these egg-robbing corvids detest it is another of their kind getting to the spoils first. Alternatively, a piece of raw, bloody liver, the rubbery the better, nailed down onto a log or fence post so it can't be dragged off, also brings in the corvids. The texture of the meat isn't easy for them to break up so they have to work to get pieces off, giving you more time to target them.

It must be said, a dead rabbit is by far the best, though. Preferably bait-up in an area already regularly frequented by the targeted species, and you need to bait an area for a good few days before shooting; better still, a week or more so the corvids will get used to finding free meals, but just as importantly, be confident feeding there. Then, when you've got the birds feeling the freebie dining area is a safe place, you simply get yourself into position before feeding time to pick off the carrion-eating critters. A major advantage of this method is that it allows you to dictate the range at which the quarry is to be targeted. Obviously, before the

baiting-out process begins, you'll need to have either built a semi-permanent, natural hide or have left a pop-up, portable hide in position in readiness for use. This has to be accepted by the local corvids as a natural part of the scene, and as both the magpie and crow are always moving around looking for food very early, this means you need to be ready and waiting in the hide with fresh bait in position even earlier.

Once you're in position with your crosshairs trained on the bait, you shouldn't have long to wait until a chack, chack, chack will herald the magpies' arrival, but at times they can arrive as silently as the crow. Whichever way they come, they will usually land away from the bait then hop up to it when they've had a look around to check the area is safe. As magpies rarely travel solo, they don't often come to the bait alone, and it's best to let a few start tucking in before starting to shoot. When using slit-open rabbit, don't empty too much of the rabbit's innards out onto the ground. If you do, the birds can get at it too quickly and be away with the dissected delicacies, leaving a gutted and less attractive bait. The eyes seem to be a particular favourite and once taken, a dead rabbit can soon become spent, and the bait rendered quite ineffective. There also seems to be a pecking order amongst a group of magpies. A few birds may dig into the rabbit but often one will stand nearby as if waiting its turn. As the other bird or birds will be moving and ripping at the bait the static bird is the one to target.

You can also use decoys to make the scene look more natural, but I feel rather than setting a scene, what you're actually doing is creating a pack mentality, a situation where the birds arriving want to join in before everything has gone. Whatever it is, a few sensibly placed magpie deeks can work wonders.

When I use a magpie deek, I place it right next to the bait with its beak in the open slit. This can have others flying straight onto the bait to join in for the easy meal as their greed seemingly overtakes their usual cautious nature. Alternatively, position one in a nearby tree.

Now, the crow is a different matter altogether. The crow will more often than not just appear silently as if from nowhere to land upon the bait, filling your scope with a black flurry of wings. At other times, it's deafening as you hear them calling from around the shooting position but there are none in plain view. Then again, you might experience what I

term ‘the long walk’ approach. This is when you’ll see the birds land out in the field and walk slowly forward, pecking at nothing in particular, and then walking back on themselves in a very strange display of behaviour. Whether this is because they’re not that hungry or are suspicious, which can be the case if the bait is positioned too close to heavy cover such as a thick hedge or tree line, is debatable. In this and other similar scenarios, the hunter needs to be patient and wait.

Just as infuriatingly, they might circle overhead, incessantly making that distinctive ‘kaarr’ call, with eyes scanning the area for anything untoward down below. If you’re experiencing these situations of hesitancy, there are ways to give the black stuff a feeling of security. The best by far is to use the confidence deek trick, but anything that seems wrong with the decoy, usually the fact it doesn’t look quite realistic enough, will put the birds off. In the past, I’d weather my traditional plastic deeks so that they lost their shine, but now we have deeks including magpies, and of course woodies, covered in a soft fibre that makes them look remarkably realistic. As previously outlined, these are known as flocked decoys, but even then, when specifically targeting the crow, unlike the magpie, positioning can have a marked effect on how other crows react. Some advocate putting the deek right next to the bait, others say it works better put well to one side, but both ways work on their day. Maybe the crow’s not in the mood for a scrap so it won’t go near the bait until the other leaves, or if hungry enough, isn’t fussed so decides it wants to dive straight in. Whatever you’re experiencing, wherever you place the decoy, stick with it as there’s no way you can leave the hide and expect any more action in a hurry – not from crows that’s for sure.

When it works, the extra attraction obviously instills false security in the crow flying over, proof that the crow is even seen by other crows as the cautious creature it is. If you really take to crow shooting you can put out a pattern of crow deeks, but not unlike woodies, crows don’t give each other much room to feed as if one has found food, the others want to get to it as well. Some have success using this trick by using a smattering of crow deeks, and also placing a rabbit or even using dead pigeon as bait near the pattern. Again, all are methods that are worth trying, and as with decoying woodies, there are pecking decoys and flappers available for

the dedicated crowman; and let's not forget that there's no better deek than a dead natural, so if you shoot a crow, set it out using a chin stick.

I've already mentioned the use of calls for squirrels, and some shooters swear by crow and magpie calls. If used correctly in conjunction with a deek they'll even be answered, and they do work. Overused and used incorrectly, though, the corvids soon know that the sound wasn't right. Calls are designed to either reassure quarry that it's safe to land, or annoy by imitating the territorial challenge call of the species that the call is intended for. Some imitate distress calls of the quarry's prey, such as a young rabbit or mouse, and could possibly lure a crow or magpie into range. They're not only for fox shooters and are another accessory to consider for the kit bag, but until you're sure you've got the knack of using them, stick to the deeks and bait.



Baiting down is a deadly effective technique for bringing corvids such as crows within range

Another trick if you have one on your shoot is to position yourself under an old tractor-trailer; farmers often leave them out on the side of tracks. The bonus of this is it's something already accepted by the birds on the shoot. No problems from being seen from above, but obviously, you'll need to build a screen of camo to conceal you totally, hidden beneath. In this scenario, I use another trick, which is to put out the main

bait as usual, but also to put a few, and I mean a few, scraps of pet food, bacon rind, Chum mixer ... anything that only acts as an appetiser, on top of the trailer. Then I can hear birds landing above me. They will then more often than not move onto the bait. While magpies can make their familiar noisy arrival, a thud above usually signals that a crow has arrived. Fast, galloping 'footsteps' (or should that be claw steps) mean that magpies have arrived quietly yet are clattering quickly around as they compete for the scraps you've left out above. As mentioned, one of the bonuses of this method is that you can position the bait at the exact same zero of your combo. Over this distance of 30 – 40yds, I choose a pre-charged .177 with a low-light scope for the early morning work, as in winter it seems to take an age for the light levels to rise.

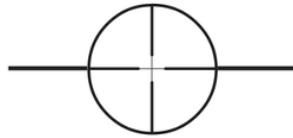
Now, all this is fine on arable land but what of airgunners who have land devoid of much cover, such as moorlands? Don't be deterred, as I've found baiting-down to be just as effective, if not more so.. Magpies, and especially crows, can be found in great abundance, living off the dead of the land, so to speak, as they're used to finding stillborn lambs, dead sheep etc.

When shooting on barren landscapes such as moors, cover for the hide can be difficult to find, but a few hide poles with some of the darker, autumnal pattern, camo netting leaned against a dry stonewall, or even around fencing, will usually conceal you well enough to make the effort worth your while. Needless to say, I'm sure you can appreciate that baiting an area for suitable quarry can reap rich rewards for the patient hunter.

So there you have it – Hunting Techniques. In this chapter I've outlined more methods than most hunters will ever get to try, and in some cases depending on the type of land you're allowed to shoot over, some methods aren't going to be viable to use. In fact, it's fair to say that most airgun hunters shoot over pasture land, and if lucky enough you might get the chance of a shoot through a large mature wood. Some are unfortunate in the fact that they have mainly moorland at their disposal, often harsh and bleak areas especially in winter. I've shot all over the UK and due to my geographical position, I regularly get up onto the Pennines, down to the lovely lush land of Shropshire, over to the rolling and wonderful country of Wales, and back to the relatively flat, open

mixed countryside, or even the industrial wastelands that scar some parts of the North West. Although I have my obvious preferences, each area sets the airgun hunter a challenge which it's always up to the individual to accept and make the most of.

Even if you don't get to try all the techniques mentioned, you'd surely get a chance to try your hand at most. Hopefully, as you become more proficient you'll quite possibly start to develop tactics of your own, and we haven't even looked at shooting after hours yet!



13

Shooting at Night

The night hunter now has a choice to target quarry either with an artificial light source (lamping) or a Dedicated Night Vision (DNV) riflescope.

Both lamping and night vision equipment have moved on in leaps and bounds in a relatively short period of time. In relation to the former, lamps now use LEDs and battery packs are smaller and lighter.

With the introduction of the first dedicated digital night vision riflescope, NV kit has also changed out of all recognition. A lot has happened since the original version of this book was published in terms of the options that are available for night hunting.

However, despite the relatively new technology of rechargeable, long-life, Li-ion batteries and powerful, compact, LED-illuminated beams (replacing Halogen or Zenon bulbs), it would seem from a certain perspective that lamping seems to be at an all-time low. Also, no one could have predicted how digital night vision units (more on these in the relevant section) would suddenly captivate the interest of both airgun and firearm hunters. The result is lots of new NV kit has been made in a relatively short period of time. This has certainly slowed sales of lamping kit, but the established gun light manufacturers still have a lot to offer and are fighting back with some of the best lamping kit the sport has ever seen.



Many night shooters are now switching over to the more compact and user-friendly tactical torches

Lighter and Brighter

Most of the leading names in lamping gear have shifted emphasis towards the 'tactical torch', especially for airgun use, offering lightweight, self-contained, gun-mountable units with no heavy external battery packs and trailing leads. Some allow us to see right out to 200yds+. Over-powered? Not really, as most have variable power modes and depending on the unit or quarry being targeted, at the quick push of a stock-mountable, multi-function remote unit the light can be dimmed so as not to alarm quarry within sensible hunting range.

Build-quality is at an all-time high; battery management systems are fitted to virtually all units that are gun-mountable, all use high-quality, industry standard Cree LEDs and have multiple mode/power settings that you operate with suitable remote switches. The design of these units is compactness, lightness and in many cases more power, and ease of use.

Lamping

Firstly, the traditional method using lamp and gun, because the hunter, except in very specialised circumstances, still hunts quarry after hours using time-proven methods and basically, it's the equipment we can use that's got far better.

Sport shooters and pest controllers have been using lights to target quarry at night for many years. In the early days, these were homemade light sources; from big searchlights mounted on ex-Army Land Rovers, to cumbersome torches strapped under barrels and gun lamps made of bits acquired from old motor vehicles or motorbike headlamps.

In those early days, the night shooter was always striving to find kit that worked more efficiently. Many a hunting apprenticeship was learned from a son carrying the battery pack for father's lamping trips.

It must be remembered that to the non-shooting public, a lamp seen scanning over a field at night must be the work of a poacher or ne'er-do-well. Remember, always inform the landowner or farmer if you are planning a trip at night, and in certain cases, even put a call into the local police station. It's courtesy and prevents a time-wasting trip out for the local bobby to investigate.

The countryside after dark is a completely different world to the one you see in daylight. Sounds are not only magnified but also as certain animals and birds go about their nocturnal activities, strange noises can at first be unnerving for the newcomer to night shooting. If so, go with a shooting partner, but never be complacent. Consider this saying - 'always be properly equipped to shoot and hunt effectively, efficiently and safely'. That could never be more appropriate than at night. In fact, for reasons of safety always let someone know where you are going; a relative, friend, wife or girlfriend, and tell them when you expect to be

back. Unfortunately, accidents can and do happen, and at night if you're not prepared it could have disastrous consequences.

Required Kit

We mainly have both Deben Group Industries Ltd and Cluson Engineering Ltd to thank for many of today's lamping innovations, as they are the major players who've pioneered the design of lamping kits. There are lighter lamp heads or gun-mountable torches and the much lighter external batteries or on-board, hi-tech, rechargeable batteries, lamps/torches of varying intensity, some with optional dimmer switches, stock-mountable on/off switches, with or without dimmer control.

We'll see later in this section, that whilst in some cases using a dedicated Night Vision (NV) riflescope is a better option for night shooting, or to use another term, shooting in a lightless area, the traditional night time walk with lamp and air rifle searching the autumn fields for rabbits is still a very challenging and most rewarding experience.

As we're dealing strictly with air rifles, there are more shooting techniques and opportunities available to the airgunner using the lamp than just shooting at night over fields for rabbits. These include close-range indoor shooting for rats. Due to this, in the following sections I'll deal separately with lamping over fields for rabbits, and using a compact gun lamp or tactical gun-mounted LED torch for rat shooting in and around farm buildings. Also due to the fact that lamping is done outdoors for rabbits, and often indoors for rats, I'm segmenting this section so it fully details lamping technique for each species, including methods specific to both outdoor and indoor use.

As we progress, you'll notice that I often make reference to the use of night vision equipment with your lamping kit of choice. The airgun hunter has the opportunity to take advantage of such useful accessories as a handheld, pocket-size NV monocular and where possible, I feel they should. I'm sure that even the hardened traditionalist will realise the benefits of observation in an area without disturbing it with light - both indoors and out.



Compact head torches are a necessity for the night hunter – as useful for loading magazines as they are for finding downed quarry

Green Day

Stepping way out of the box, but still within the realm of light, we have what is claimed to be the 'ultimate alternative to night vision' in the form of the ND3 Subzero Laser Designator, from Laser Genetics. This uses patented technology to create, in

their words, 'true night vision' and turns a day-scoped rifle into a night hunting rig. It's not a true night vision unit, rather it uses a powerful eye-safe light emitted by a green laser diode. It's capable of projecting an intense green beam out to 250yds. Powered by a single CR123A battery, it comes supplied with a fully adjustable 1" and 30mm scope body tube mount with windage and elevation adjustment, remote on/off pressure pad switch, a binocular and spotting scope mount, Weaver mount with dual-size mounts (3/8" and 5/8".)

The adjustable scope mount allows you to fine-tune the torch to illuminate exactly the range you require it to be set, and the beam can be quickly changed from almost pin-spot to flood by turning the ridged and conically shaped adjuster (Rotary Optical Beam Collimator) positioned at the rear of the torch head.

Operated by tail switch or remote pressure pad and lead, they're still somewhat of a specialist piece of kit in the UK. However, at times, they can be a solution to knocking down twitchy hares or rabbits with a hi-power, FAC-rated air rifle as the green laser diode light doesn't seem to bother them as much as a normal or even filtered beam of light. It could be that they're momentarily puzzled, or even dazzled, but you'll easily pick out eyes and the animal itself for clear identification through the scope when using one. Scan an area with it on whatever setting you feel is best, as you would when using any gun-mounted light, then nudge the beam around to a very tight laser spot almost 'painting the target' for a smart bomb!

In the Spotlight - Rabbits

A major consideration for using a lamp with an air rifle is range, and choosing a suitable lamping kit isn't all about candlepower. This is the term pertaining to the power given off from a lamp that uses the more traditional Halogen or Xenon bulb, whereas in the case of an LED, this is rated in lumens. Remember, more often than not, you only need to spot quarry at 80-100yds at the most, not dazzle everything out to 200! For the airgun hunter, gun-mounted lamping kits are plentiful as there are a reasonable amount of companies now making this equipment, and although all have various models, they're basically very similar. Their job is simply to illuminate the target, whereby enabling the shooter to take an effective shot.

The lamp needs to have a tight, controllable beam, not overly intense even without a filter. If gun-mounted, you want the lamp to be lightweight and as unobtrusive as possible so as not to affect the handling of the rifle and, of course, easy to use. The last thing you need to be doing is fumbling around searching for switches or controls at a critical moment. Similarly of concern, is loose-fitting filters that may fall off at the least opportune moment and lead attachment points that can easily become disconnected. This is why many now favour the gun-mounted, rechargeable LED torch design lamping kits.



An alternative way to scan using the gun light is to have the rifle held in a specialised rifle sling and set high on the body

In relation to lamping kit, buy from the reputable brand leaders and you won't go far wrong. As part of any hunter's standard lamping kit, if you're still not using a lamp which has an LED, I'd always recommend that you take along spare bulbs, battery fuses, and a couple of different coloured lamp filters for diffusing the light down if rabbits are twitchy or difficult to spot on a dimmed, unfiltered white beam.

There's also another very good reason to use a red filter on a lamp. While white light to some extent shines back off the rabbit's eyes, you'll see a much more pronounced red glow from the animal's retina when using a light with a red filter. This makes rabbits far easier to spot amongst scrub and when within range, aids you as a useful reference point to put the pellet into the head shot kill-zone. So, filters - very much as essential for spotting as they are for diffusing a harsh white light.

Now to the powerhouse: Always ensure that the battery has a full charge before setting out, and remember, a 6 volt battery pack and lamping kit gives less run time than a 12 volt, but the larger battery does, of course, tend to be heavier. If possible, take a spare battery pack and leave it in the car in case it should be needed.

If your lamping kit can be boosted with one, take the vehicle charger out as well. Apart from that, there are other pieces of kit you'll find useful for all manner of night shooting. I highly recommend that you keep an LED torch in a pocket, or on a lanyard (tucked into your shirt) around your neck, so it's close to hand at all times. Small, button-size LED lights or compact LED torches are very handy for changing/refilling magazines or reloading a single-shot in the dark, but I must say a multi-shot air rifle at night is a big bonus. Carry a few pre-filled spare magazines and you'll be sorted for all but the longest of forays. A small roll of camo or insulation tape is useful for securing trailing leads out of the way if you are still using the lamp to battery connection leads, and if you get a troublesome connection on your kit, it'll be handy to bind it together. Here again, your multi-tool will come in handy, not only because a sharp blade and scissors are always useful, but also the pliers can help you sort out electrical connections.

For the rabbits you bag, you'll need a knife, string, and Paracord or a game carrier to aid carrying. That is if you haven't mastered the art of hocking; this is threading a back leg through a slit carefully cut in the lower part of the other back leg, which allows the rabbit to be hung on a branch to cool. If you haven't mastered this trick in daylight, tie the back legs up with string or Paracord and similarly, hang the rabbits to cool on a gate or fence post until you pass back that way.

Of course, once you've done your rounds and collected them up, a rucksack with a plastic bin bag liner is very useful to carry them away in.

Some recommend that you paunch (gut) them in the field as this is less weight to carry off the shoot. If you don't shoot everything that hops within range, and only take a few for the pot, then a rucksack with a waterproof lining is a suitable option.

Keep some wet wipes in a jacket pocket to keep your hands, knife and gun clean. These are useful for removing fresh blood splashes off metal, but once home, use a suitable silicone oil wipe. Talking of which, never forget cleanliness when dealing with any situation where an accidental cut or spilt blood is involved, and yes, here's when you also might welcome the antiseptic spray and plasters in your first aid kit; and remember - a mobile phone can be a life-saver. You can switch it off when actively hunting, but it's your contact for help should it be needed. An emergency whistle is another back-up safety measure and contact device to have with you. So, there's the kit, but before we look at its use a quick word on something that many shooters tend to forget.

As the traditional lamping season passes through autumn into winter, the temperatures at night can drop suddenly and surprisingly low - so dress accordingly. Whether you wear a facemask and gloves is up to the individual. At night, during the colder months, there is reason to use them for keeping warm as wind can soon chill the face and numb the hands. As for concealment, on a dark, relatively moonless night they're not essential, and I may or may not wear them depending on the situation, but I do tend to find that they help focus me into hunter mode, and in turn, help me to shoot with more confidence. However, and I know I'm getting ahead of myself, if using a night vision scope on a moonlit night, that I would recommend you do. A thermal, black balaclava and black fingerless gloves will suffice; it doesn't need to be camo, but certainly dark enough to hide the white face and hands.

As sound carries much further at night, even more care must be taken with your movement. Zips and buckles you hardly notice in the day can sound like metal gates rattling in the wind in the still of the night. Another no-no is clothing that rustles.

Also, the only sure way of walking more quietly at night is to lift the feet higher than normal, lessen your stride and place the feet down slowly and carefully. The reason is that you can't be as sure of the terrain as you can during the day. Walk cautiously, there's no need to rush and you want

to know the ground is still flat. Walking over terrain as unobtrusively as possible really is an art form in itself, but one that can and should be mastered! What should be addressed here is not to overexert yourself in the process of your night hunt. If you do, by the time you reach any quarry, your pulse will be racing and you'll be breathing heavily, resulting in a very unsteady, shaky aim. Always be prepared to rest when needed before carrying on, and certainly know when to call an end to a hunting foray. Also, don't try to cover too much ground. Better to cover a reasonable amount well, while shooting on top form than cover a lot, but shooting and generally performing well below par.

Now a note on practising with the lamp: As familiar as you are with your combo, it will at first feel strange shooting at night with the light illuminating the target. First problem will be head position to look through the scope and the next will definitely be rangefinding. I don't recommend that you shoot on your back garden range after dark as neighbours won't take kindly to this, even if they tolerate some daytime zeroing and practice sessions. Preferably, get out on a quiet part of the shoot, one usually barren of rabbit activity, and practise at night on a few knock down targets. Set out a small course with three or four put out at staggered intervals, and don't give yourself the added bonus of knowing ranges from set positions or range markers. This defeats the object. Once set, start from approximately 100 yards from the first target, walking up and actually practising your lamping routine. Once you feel you're within range, try a shot. Don't take forever in taking it because few bunnies just sit there as if dazed by light. Shoulder the rifle, put the lamp on, take aim and shoot. This will soon get you up to the required skill required. You may think this a waste of time but believe me, not half as much as going out night after night only to miss every opportunity that presents itself.

As you practise and familiarise yourself with the lamp and shooting in these simulated real-life conditions, you'll begin to appreciate that judging range can be very deceptive with artificial light. This is because light is being directed at the target from your shooting position and not coming from all around, as in daylight. This tunnel of light can make targets look further away than they actually are. Some experience the opposite; targets seem closer than they really are. Obviously, lamping conditions can affect different people's senses and perceptions of

distance in different ways, and practice is the only way to master this visual distortion.

Another trick is to use a laser in the set-up, as detailed earlier in the book, as a reference for quick range estimation. I must admit that I use these in certain indoor shooting situations and especially with NV scopes, I find them a godsend. Before leaving the subject of range, a big no-no is to try long-range shots at night. It is irresponsible and unsporting. If you can't stalk closer, leave them until another night.

Here a reminder on safety and safe shooting practice; All that holds true in the day must be strictly scrutinised more closely when shooting at night. Although you are using a relatively low-powered rifle, always ensure that the backstop is safe behind the target. Although tempting, don't pot a rabbit on the brow of a hill if you aren't 100% sure that there can't be any person, or for that matter a domestic or farm animal, over that hill. Know your shooting ground, paths thoroughfares, anywhere someone might 'just appear' don't go there at night. Remember, safe shooting at all times.

So now – the method: Firstly, I'm presuming you know your shoot well and have a good idea of where the rabbits feed. Even so, go at dusk without the rifle and observe the area. Watch from a distance and you'll see the rabbits and which fields they venture into. If you want to really reconnoitre the area at night, then invest in a pair of NV binoculars.

The knowledge you'll learn observing various areas of the shoot with NV is priceless. A small monocular is handy to have with you while out shooting, but a pair of good-quality Gen 1+ NV binos, or the digital equivalent, is far better for this type of dedicated observation.

First major no-no is, never overuse the lamp or go clumping straight into a field you presume will contain rabbits. For this reason, I always recommend the airgun hunter use an NV observation aid such as a compact monocular; either analogue or the lighter, and often better priced and performing digital alternative, to examine the area he's planning on operating over. At risk of sounding like an NV sales rep, believe me when I say, in the time I've incorporated one into my lamping kit and routine it's revolutionised my night hunting.

Not all areas will be overrun with nocturnal feeders, and a few hours at various times of the night, if you can spare the time, will show if you

should be out an hour after last light or the wee early hours of the morning. Then, once all is established, it's kit together and off into the area where you've assessed rabbits are most likely to be feeding.

Everything you've previously read about stalking holds true when lamping – if anything doubly so. Be especially mindful of wind direction because at night the rabbit will be relying heavily on its sense of smell and hearing. Before you use the lamp you should have one major bonus on your side; they most likely haven't seen your approach. This is where stopping at regular intervals for a quick look through the NV monocular can be a great advantage. When you spot the feeding rabbits, your approach should begin with even greater care. Incidentally, when looking through an NV device, quarry can look a lot closer or even further away than it actually is, so don't over-rely on it. Let the observation unit aid you in two things; spotting the rabbits that appear to be stalkable, and to plot your route across the area between you and a suitable shooting position. Never try to get too close without quickly scanning the area with the lamp. This may seem strange as you have the opportunity to watch undetected, but this first quick sweep 'light on, light off' will allow you to determine how twitchy the rabbits are and where they will now be in relation to the distance you've travelled. Whether using an NV device or not, the optimum way to use the lamp for detecting rabbits is the same. Don't, as some advise, continually bring the rifle up to the shoulder, switching the lamp on, scanning around looking through the scope to observe. Not only will this quickly become tiring on the arms, but you'll also miss spotting a lot of rabbits, even if using a scope with a good width of view.

In the dark you might think you're heading in the right direction, but unless you've also picked out a landmark on the horizon, clearly silhouetted in front of you, it can be surprisingly easy to stray off the line of approach. So, on first pass of the light, look for four major things; closest target to set zero, other potential targets close by, the state of alertness of all the rabbits in the bunch, and of course check the terrain.

This is a most crucial moment. I always recommend that the hunter, quickly switches off the lamp and stops to gather composure and calm nerves as adrenalin will be pumping. If you've approximated 60, 70 yards or beyond to the target, when ready to move on, count your steps

until you've counted off enough to bring you approximately within 25 yards of the target.

Then, move forward a tad further depending on the initial range judged. When you flick on the light you'll more often than not still be at the range you thought you would be before you moved forward. Because you're moving slowly, the distance of your pace is less, so you cover less ground than when walking in the daylight. Also, rabbits, even if not overly twitchy, have a habit of shuffling around and moving away from anything detected in the field. I'd recommend you steady yourself, adopt the standing or preferably the more stable kneeling position, if the terrain allows, bring the rifle up to your shoulder, flick on the lamp, choose your target through the scope and without too much dithering take the shot.

Okay, you missed or hopefully you've knocked your first rabbit over, but as soon as you see 'miss or hit', as long as it isn't a wounding, turn the lamp off immediately. This is where an NV monocular comes in handy again as you can use the unit to assess the situation with other quarry. If other rabbits were in the proximity, they can have fled for cover, whilst some might even hang around bolt upright, ears pricked up, wondering what happened. Your actions at this moment could give you another chance of a shot or a short stalk for a shot. Experience will show whether that's on the cards or if you need to retrieve the prize and hang or hock it for collection later. Don't wander off aimlessly in another direction in search of any other rabbits before retrieval, as you'll not find the first rabbit you've shot, not without much searching and disturbing the area with light, anyway.

So a quick recap: Never overuse the lamp, to prevent spooking quarry and save your own night vision. A tip on regaining the latter if you inadvertently catch a flash of the light is to look at the sky, look at the floor and then look at the horizon. Try it - it works!

When rabbits are running and twitchy don't follow; it's more often than not a pointless exercise. Try another area or tactic. One is to cut off the rabbits' escape route. This may sound strange but rabbits really are creatures of habit. Why do you think they make such well-worn runs out into the fields? If really late, the rabbits could well be a long way from the main warrens or boltholes so if the wind is in your favour approach from the warren along the rabbit runs. Incidentally, the direction of the

flattened grass in the run will often help indicate which way the rabbit headed, and experience will even help you to determine how fresh a rabbit run is.

So, when you find the 'far feeders' this method of approach and the light hitting them from your position will cause confusion. Often, rather than risk bolting past you for the cover which you are cutting them off from, at seeing the light they'll often squat down low and as flat to the ground as possible.

Another factor that will have bearing on results is the weather conditions. If there's the risk of fog, or even a light mist, coming down that night, at ground level this can cause infuriating bounce-back from the lamp, making spotting very difficult. Most say that ideal conditions are a cloudy, moonless night with some wind and a light drizzle! Well, as for the latter, living and lamping in the North of England, drizzle can often be the norm at night, especially during the latter part of the year. Whether it does help mask the sound of your approach is debatable, but you shouldn't need to rely on anything overpowering the sound that you shouldn't be making anyway, and on nights with drizzle, rabbits aren't troubled and go about their nightly routine - they're used to the elements.

As for cloud cover, I'm not convinced that a sky heavy with cloud is of such high importance. For a start, ambient light from a partial moon and a few stars can be a bonus, especially when using the NV monocular. Obviously, you don't want a crystal-clear, cloudless, still night with a full moon, but you certainly don't always need a total blackout. Consider this: Years ago, there weren't as many streetlights, factory and workplace security floodlights, or even house lights to light up a night sky, and in some country areas, streetlights used to be switched off very late to conserve power. Now with rising crime, lights are everywhere, and for people's security and safety that's a good thing, but when the cloudbase is really low all those lights actually reflect down, making the ground lighter and creating an orange-tinted glow. Unless you're in the Outer Hebrides you're then faced with being seen quite easily from a rabbit's ground view as your silhouette is visible in the glow no matter how well you conceal yourself.

Other variables to consider are; which fields hold sheep or cattle, and it is no use shooting fields with long grass or over land with too many

ridges to cross. Also know what the farmer has planned, no use walking carefully over to a far field to discover the tractors out late with the roller flattening grass, or he's working late cutting or trimming hedge-side foliage!

Favourite areas are freshly-cut grass fields, with a lovely scent in the air and the rabbits relatively easy to spot at medium range even without the lamp. Stubble fields are hard to walk over silently but do attract the rabbits. If you can, walk around the perimeter of the stubble field and you might well spot a few and be able to keep a hedge or some such cover behind you, thereby helping to conceal you're appearance in silhouette.

Now to other ways with lamps: The airgunner can even use a simple headlamp, either powered with batteries in a head-mounted pack, or for longer duration, attached to a belt-mounted battery pack. If you're fortunate enough to be driven around the shoot in a 4 X 4, there are remote-operated, vehicle-mounted lamps, or simply use the gun-mounted lamp to scour the area within range, out from the sides of the track or fields you're travelling over.

As mentioned earlier, if unsure about going it alone, then shooting with a partner is an option; one operating a hand-held lamp while the other shoots. By pairing up in this way you can take it in turns to take the shots. If you try your hand at this method, then establish a set working routine with your shooting partner. Lamp man spots – shooter shoots. The lamp man should keep the main beam off any rabbit spotted until within range, so the shooter has a clear and straightforward shot when they arrive. He should never walk behind the shooter as this can cause the lamp to produce glare in the eye-piece of the scope making targeting nigh on impossible. Slightly to the front, but obviously out of the line of fire, and keeping to one side, usually the left, is the name of the lamp man's game. Most cordless, rechargeable hand-held lamps will have enough power for the duration of a usual session. If not, take at least one spare fully-charged battery, and leave another at a convenient pick up point to swap over if one runs low. It's also useful to communicate with hand signals to cut down the need to tell each other of opportunities spotted, time to stop, or change a line of approach. If verbal communication is needed, do so in whispers.

Incidentally, although scopes have been dealt with in previous chapters, it is worth looking at a few factors pertaining to optics best suited to lamping. You've probably read that you need a scope with a large objective lens. This isn't strictly true because any quality scope will afford you enough light transmission to target your quarry when using a gun lamp.

It is more important that you have a scope with a wide field of view and one that doesn't have a reticle with overly thin crosshairs that can get lost in the sight picture. If using a general specification 3 – 9 X 40 scope, winding the magnification down to 3 or 4 X will give a reasonably wide field of view enabling you to quickly find the target in the sight picture.

Although we have scopes with multi-aim-point reticles, I'd recommend hunters stay with the 30/30 duplex, German post design, or if you use it for day and are very accustomed to it the standard mil-dot. Also preferably choose one that can be lit using a rheostat with a dual (red/green or red/blue colour) illumination facility.

Now to a subject of some contention: Personally, I'd say never take a shot at a rabbit on the move. I cringe when I hear people brag about how they can regularly shoot running rabbits with an air rifle. Always go for the head shot, a clean kill is imperative as you'll never find a wounded runner at night without a dog. Don't get frustrated as you will find rabbits that hold in the lamp. So why educate them into putting the equation together that 'you + light + sound of pellet whistling past' = danger? They'll be much twitchier the next time you go out. Talking of which, if the rabbits do seem overly twitchy or there's few around where your observation has told you otherwise, it could well be that a fox has been out that night already. As I mentioned in a previous chapter, foxes at times can leave an extremely distinguishable aroma much worse than cat wee, and trust me, you'll know when you smell it.

Unfortunately, on occasions such as this rabbits can be very unpredictable. They could re-emerge from their burrows sooner than expected or stay hidden for a good few hours. When faced with this situation, depending on how much time you have, I'd recommend that the hunter try a totally different area or it maybe better to return another night. Don't get too complacent or lackadaisical, know your hunting area and watch how you go. Stumbling into a ditch or tripping on rough

ground isn't recommended with a loaded rifle. One very experienced airgun hunter of my acquaintance did this and got away with snapping the lovely walnut stock of his favourite hunting rifle. He was lucky, as it could have been his leg, or worse!



Hunting at night is as challenging as it is rewarding

Well, that's it for rabbit shooting with the lamp, but of all hunting methods, when you get it right it can be one of the most rewarding.

In the Spotlight - Rats

Shooting rats with a gun lamp is even less about candlepower (or lumens), than lamping rabbits, usually because it's done at much closer range, but before altering your rifle's zero, it's advisable to have a recce of the shooting location to assess the ranges where you'll be most likely to encounter targets. In some cases it can be as close as 10yds or even less, others 20yds, or if the barn is a high, hangar-type you might well be best leaving your zero set as normal.

Invest in one of the gun-mounted lamping kits with a variable power control to dim the lamp or torch. If you want to use the same lamping set-up you use for rabbits, then certainly get a coloured filter that really does

diffuse the brightness of the lamp - red or amber filters being the preferred colours of most hunters and again, it'll help you spot those beady eyes.

As for an NV monocular, for rabbit shooting you don't strictly need one, and neither do you for rat shooting, but once they've become very skittish to the lamp, for giving you an edge, I reckon you do. They've come down in price dramatically since they first came available on the civilian market, so you won't need to pay a fortune for a good, compact, Gen 1 model or more favoured now, a hand-held digital unit. A basic hand-held compact device will suffice for ratting but you do require it to have an infra-red (IR) illuminator which allows you to see in total darkness, and the IR light projected reflects back off the rats' eyes, this time seen glowing whitish/green when viewed through a traditional, tubed NV device, or piercing white in the monochromatic sight image that a digital (more on this technology later) unit creates. Whichever you use, you have no problem spotting them in even the furthest, darkest recesses of the most cluttered building.

Again, a multi-shot PCP air rifle is the ideal choice coupled with a scope with good light-gathering properties and, of course, a wide field of view. Also, a standard red laser sight with rear-mounted, push-button on/off switch or the more versatile stock-mountable, pressure pad design switch can be useful.

Before we get into the pros and cons of the laser in the set-up, firstly, a look at the method with traditional gun-mounted lamp. As always, location is the key to success. Even a quick look around will show where the rats have been visiting; the signs of rat infestation are droppings, scratchings, teeth marks, chewed sacks or materials, and other such damage.

As you are shooting rats indoors in the farm barn, you need to be mindful of your personal safety. Check the place over during daylight or with the lights on before you settle in for the night. It's all too easy to walk into a piece of angle-iron or trip over a wooden pallet or a welding-torch hose.

If actively searching around the inside or outside of the barn, have the rifle half-mounted with the butt in your shoulder and the leading hand in a position to hold and both operate the lamp switch and direct the beam.

Holding the rifle in this manner means you're able to react more quickly once you spot a rat, or just catch the red glint off those beady eyes. Then you can fully mount the rifle and shoot. Rats rarely give you time to think, so quick range estimation and careful aim are needed. Now, that can be as difficult as it sounds or easy depending on how much activity the rats tolerate, the population present, and if they've been shot at before. If searching inside, scan all the beams, girders, nooks and crannies. Rats love overhead structures that can provide off-the-floor routes to and from areas of interest to them.

To establish which beams or girders rats use to get to and from a food supply, simply get into a position that allows a good view of the barn interior and just quietly stand or sit, carefully watching and listening. Yes listen, as more often than not you'll hear their sharp claws scratching around in the grain silos, or storage bins, and the odd scrabbling or squeaks as they pass overhead on a run along a beam. You might actually only see them at the points they enter (drop) into the grain bins or make out the unmistakable silhouette when they travel along the top of beams and girders in the gloomy roof space, and whilst you can target them searching with the gun lamp, a more productive and less tiring method is to employ an NV device into the technique.

Using the NV monocular you can spot scaly tails without disturbing them with the light. At first you'll get 'sitters'. Sitting up aloft on their little perches they'll either be nibbling something or just hunched up, watching. Once a static rat is spotted through the NV monocular, carefully put the hi-tech sighting device to one side, and bring the rifle up to the shoulder but angle the rifle higher than the rat's position so when you switch the lamp on, the beam doesn't hit the rat full-on. Ideally, you want the light to point above, not shine directly at the rodent as it may immediately run for cover. The optimum way is to bring the beam down slowly to the point where your crosshairs reach the rat's kill-zone, then fire.

When you get into the swing of lightless sighting, and this particular lamping and gun handling technique, you'll soon have scaly tails thudding down onto the barn floor, but they'll not hold in the light for long and the shooting will become even more demanding as you eventually need to tackle them on the move.

In fact, when shooting, take regular breaks to lull the rodents into a false sense of security so they might come out once they've settled again after the initial disturbance. Remember, few barns are over-large so, in effect, you're continually shooting the same area.

If trying your hand at rats on the move, you need to get into a position that allows you the best view of the rat as it travels the beam or girder. Usually, the main beam in a roof space will be crossed and met with other beams, or angle-iron strengtheners. At these points, the rat will slow down to negotiate them and often, if wary, will pause momentarily here before moving on. These are the areas to take the shot but you often only get a split second to take a snap shot of the target. Shooting them in this manner requires pinpoint accuracy, coupled with the discipline of knowing when not to shoot.

If they're not pausing, then shooting really is demanding. As long as they're not moving too quickly, you can track the rat in your sights and actually shoot as it is moving along the beam, or alternatively at ground level along the base of a wall. You need to establish that the backdrop is safe and you have to be skilled enough to give the rat just enough lead, as once you slip the trigger, like the shotgun shooter you need to keep your rifle moving with the target so the pellet keeps on line to go into the kill-zone on impact. As you can imagine, this isn't easy but once mastered it is very rewarding. Similarly, establish a point where the rat enters another area or climbs up or down an adjoining beam. The rat may also pause at this junction and if you can time your shot as the rat passes through the area, you're in business. Again, this takes skill and until it is acquired be prepared to waste a fair amount of ammo, but, once you get the timing right, it's very gratifying. Eventually, tracking the rats this way with a beam of light from a gun-mounted lamp will have them running more quickly and the rat really can shift when it needs to. If they're running this fast then it's even unsporting on the rat to try to shoot them in this fashion, but there are still a few tricks you can employ.

The obvious one is to diffuse the light even further with a filter and if your lamping kit has one, which I advise, bring the brightness of the light down with the dimmer switch as low as you possibly can, but still see to target the quarry.

When shooting in pairs, a trick at stopping a rat in its tracks is for one hunter to track it with the gun lamp, and then the other shooter, using a gun lamp or hand-held, suddenly illuminates the area the rat is heading for. This can often cause the rat to pause for a second or two, deciding whether or not to dash through the light to safety. This hesitancy can be just enough for the first shooter to take a shot, but when they're becoming overly lamp-shy and scurrying for cover at the slightest disturbance, it's time to target them using dedicated night vision riflescopes, a particular specialised form of shooting and one we're now ready to look at for both rabbits and rats.

Just before we do so, a few words on lasers; If the situation has had you set the scope zero at 20yds, the laser can be set either as an aid for quickly assessing range, or as a secondary sighting system for the rats that really do appear too close for comfort. Often while you're scouring the beams or sitting quietly watching an area, one will cross the barn floor, even appear from a grain funnel, or from under cover no more than five or six yards away, and there can be enough ambient light in the building for you to see the rat in the gloom, especially if positioned close to a large open entrance. Even with your scope on the lowest magnification, you'll have no chance of even seeing it through the lenses, let alone assessing the holdover that very close-range shots require. With the laser set for a range of eight yards or so, without using the scope, you can put the dot on the front third of the animal's body, resulting in the smack of a solid hit or the 'zing' of a clean miss. However, I must quantify this technique by saying that I only use this set-up shooting .22 calibre, and I only set up the laser in this manner when experience of an area has indicated that rats are often coming in this close. Also, the laser in these cases isn't scope-mounted but rather fixed in a special mount on the barrel or silencer, to be as close to the axis of the barrel bore as possible. As you can see, lasers are very versatile. The setting up of them was covered in the latter part of Chapter 2, but there's more on these devices to come in the next section.

Night Vision

Advancements in Night Vision technology have been huge in recent years. Many airgun hunters know that digitally operated night vision equipment is now a reality, widely used and accepted by many who prefer the stealth of hunting without a conventional lamping set-up.

This chapter has been revised in part to explain the difference between traditional NV units or as they're now termed, analogue and digitally operated ones. Also, there are other sighting systems that use digital technology so they can be for both day and night use. Even so, it's still of great relevance that I begin by charting how NV equipment first came into the UK. Please be aware that what follows refers to the origins and use of early analogue units, so called because they use an Internal Image Intensifier (IIT) to create a sight picture.



Hunting with Nightvision is an exciting branch of the sport

In the Beginning

When night vision equipment first became available to the UK sport shooter, it caused some interest but didn't have immediate mass appeal due to the comparatively poor performance in relation to cost. Also, the very early models of NV riflescopes often had unconventional reticles,

basic adjusters for windage and elevation, and in many cases were heavy and gave a poor or grainy sight picture.

Not surprisingly, the shooting fraternity at the time was divided on this new see-in-the-dark technology. On one side there were those who felt it would have limited appeal and fade away into obscurity, but on the other, the more open-minded who hesitated at the beginning, still watched from the sidelines, read the reviews and eventually decided to try NV when it had proved itself and become more established as an alternative to gun-mounted lamping kits.

Night vision equipment was originally designed by the military for detecting, and ultimately in terms of a NV riflescope, was designed for shooting man-size targets without detection in the dark. Later, the export models were designed for sport shooters targeting large animals, such as bears, wild boar, elk etc., and this is one of the reasons that reticles weren't very subtle, usually being little more than a thick-lined, inverted chevron. Also, the grainy, green image produced inside by the IIT was not really up to the standard required and 95% of units were poor-quality Gen 1 scopes with pitifully weak built-in infra-red illuminators. Some factories were producing new second generation intensifiers, and these offered more range and better performance but weren't of high build quality. The internal 'noise' of the picture was poor, slightly fuzzy and a bit like a television set not tuned in properly.

I realise many will feel there have been too many other military references in this book, but this is an area that can only be fully clarified by charting the development of NV technology for the armed forces, before we can appreciate how it began to become accepted into our sport.

Night Vision – The Full Story

In the 1960s, military officials predicted battles would be fought at night. No surprises then that both superpowers, the USSR as it was then known, and the USA, and NATO pact countries, had a programme dedicated to the development of observation devices and riflescopes that could be used in the dark. The early devices, used technology that dates back to the end of the Second World War, which to some extent can be termed Gen 0, and were operated by bathing the target in infra-red light. The

observation aid, or scope, had an IR projector and an IR detector that picked up this light and, coupled with the IIT, produced a sight picture.

Though usable and effective, they had one major drawback for the military and that was, if you sent out an IR beam of light, the enemy watching using a similar NV device could spot your position. This was because they were 'active' (emitting a beam) and not 'passive' as with the more advanced equipment that followed which doesn't use IR. Immediately, the boffins got tinkering and moved up to what is classed as Generation 1 equipment which is basically where it first becomes of interest to the sport shooter.

This was the first passive system that could actually use natural ambient light provided by the moon and stars to produce a sight picture, negating the need for the IR give-away. Even so, some had an IR facility to boost viewing range when needed, and gave the benefit of being able to see into areas of total darkness. One of the most important facets of these early Gen 1 devices was that they were cascaded. In their construction they had three Gen 1 intensifier tubes butted one against the other to create a cascade effect. Each tube had a gain of approximately 50 times the outside night-time scene, so this gave $50 \times 50 \times 50 = 125,000$, and this brings us to one of the downsides. These early analogue units, especially NV riflescopes, tended to be big, heavy and often cumbersome because they required a large body casing to house the three intensifiers and a large objective lens, both of which helped to overcome the primary need for the IR booster. By the late 60s the development of even more hi-tech gadgetry meant that image intensifier tubes could be made smaller, but with higher gain and therefore offering a much better sight picture.

The heart of any analogue NV unit is the intensifier tube, and it's the quality of the tube or the grade, or 'generation' as it is termed for classification, that gives a better sight image, and will often be the reason that the unit is much more expensive than lower generation equipment. As technology moved forward, the devices then progressed to Gen 2, 2+ and then SuperGen[®]. It was the advent of the Micro Channel Plate (MCP) that was the breakthrough. The MCP gave the necessary high gain, negating the need for three Gen 1 cascade tubes, which in turn

allowed the construction of a single, small intensifier tube and the construction of small and effective, man-portable, night vision devices.

Gen 2 devices have a fibre-optic window where the night-time scene is focused; in Gen 2+ technology it was replaced by anti-reflective glass giving more resolution and gain. SuperGen technology made even more improvements to the intensifier tube and increased the lifespan to 10,000 hours. The installation of fibre-optic input windows meant that anything butted up to the fibre-optic window is in focus – such as the reticle. The main advantage of Gen2+ is the fibre-optic bundles in the MCP that gives the unit much higher sensitivity and better edge-to-edge resolution of the sight picture. Most agree this gives 20% better performance up from Gen 2 because the image is literally being projected straight into the intensifier tube through the glass input window.

The British and American military have Gen 3 units but interestingly, like sporting shooters, are exploring the possibilities of what digital technology can do. American Gen 3 units with traditional image intensifiers, although of a very high quality and grade, are banned for sale to civilians, but there are dodgy units available, often on the black market, that claim to be Gen 3 and you'll find that these are often of Chinese manufacture, or actual Japanese military devices. What is of more importance is that generally there's no escaping the fact that these devices are specialised pieces of kit and you really do get what you pay for, so it pays to be informed.

So, back to the introduction of these scopes into the civilian market for the use in sport shooting: After the Cold War and the demise of the Berlin Wall in 1989, quite unexpectedly a quantity of what was, in effect, ex-Russian military night vision equipment became available to the western commercial market in the early 90s. Those early devices had limited use in a sporting market, though; in particular, the lack of precision because the windage and elevation adjustment of the riflescopes was very crude. Whereas the sport shooter is used to one click on a scope turret for 1/4" movement at 100yds, military night vision was imparting movement of approximately 4" per click at 100yds. They were also heavy, and required a lot of getting used to.

However, certain forward-thinking importers of optics realised the benefits and began to develop and also modify existing equipment so it

would be of use to the hunter. Expectations were initially high, but unfortunately, quality wasn't, as we were still seeing ex-military equipment coming from the Eastern Bloc. Feedback from people who field tested the devices before they came into the UK had companies address the problems. These were to install better-quality intensifier tubes; more precise windage and elevation adjustment, and some even changed the reticle for a more traditional crosshair. The latter usually being a more precise and acceptable red, illuminating cross that would show up in the ghostly green-glowing sight picture familiar to all analogue NV equipment. So whilst we now have usable scopes, in lower Gen classification they still do have certain limitations, but be aware of those and the airgun hunter has very usable analogue equipment for specialised hunting situations.

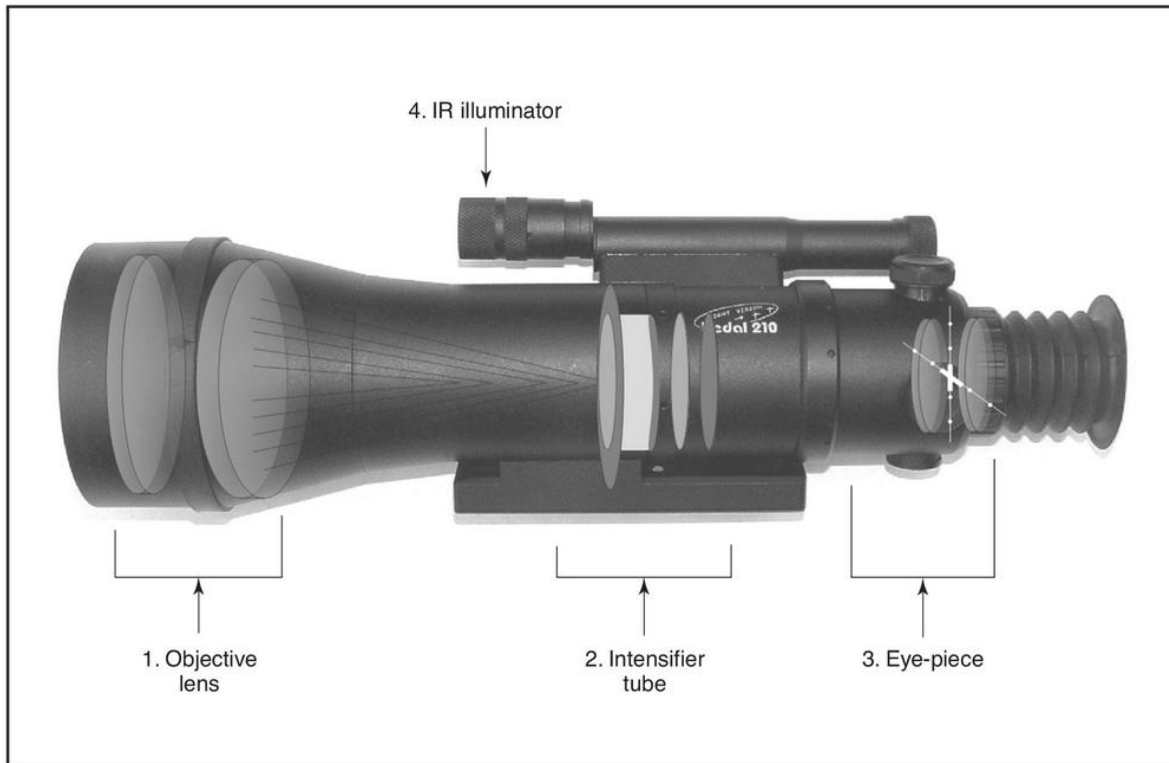
I now feel it's very fitting that I should detail how a traditional analogue NV unit works; the workings of digital night vision will be fully explained when we come to these devices.

How Does Analogue NV Work?

Whilst a conventional telescopic sight, or 'scope' as we know them, uses light from the sun during daylight hours to produce a sight picture, night vision equipment, be it a sighting device or observation aid, uses the invisible photons of light both inside and outside the usual spectrum.

The main difference is, it uses an image intensifier tube held within the main body casing and with the help of an IR illuminator to create the sight image viewed, the intensifier tube amplifies and changes these into electrons, and finally back to light when they hit a phosphor screen at the back of the intensifier tube. Thus, a window of green light is formed inside the tube and miraculously, the dark is pierced and we can, in effect, see through and into the night. Check out the cross-section diagram of a typical internal set-up of a Gen 2 NV riflescope. Incidentally, Gen 2 has been used for this due to the fact there's a less complicated internal structure, but it also amply illustrates the major components of an NV riflescope.

ANATOMY OF AN ANALOGUE NIGHT VISION RIFLESCOPE



With reference to the night vision riflescope diagram: the objective lens (1) used in a night vision device has a very high light transmission factor, much higher than a normal daytime scope. This allows more light to be gathered for amplification by the intensifier tube. Also, special coatings allow better transmission of the infra-red spectrum which is something greatly utilised by the tube.

The intensifier tube (2) is situated at the heart of the night vision riflescope. It has a thick anti-reflection coated input window composed of either glass or fibre-optic. The highly light sensitive coatings of the photo-cathode are situated here. This converts rays of light to the particles known as electrons. In a Gen 2 device, these electrons then stream through a thin glass microchannel plate full of fibre-optic strands – several million of them. This is where the amplification of light takes place by a cascade process, resulting in even more electrons being knocked off the internal surface of the individual fibre-optic, causing a chain reaction; this is known as the ‘gain’ of the tube. The intensified electrons leave the microchannel plate and strike a phosphor screen

completing the intensification process. This results in the eerie, green-glow sight picture, familiar to all analogue night vision devices, be it riflescope, monocular or binocular. The sight picture sent back through the small screen of the intensifier tube is magnified by the eye-piece (3) of the night vision riflescope which is positioned just behind the intensifier tube and before the ocular eye-piece.

The illuminated (lit) reticle is usually situated at this area. The IR illuminator (4) is a very powerful torch that shines supposedly invisible light in the IR spectrum. The torch doesn't use bulbs, rather IR diodes that are many times more powerful than conventional light bulbs. The IR beam is invisible to the naked eye but visible through the night scope and also reflects back from the eyes of animals making detection of quarry much easier. It is this that makes the IR illuminator invaluable in very dark conditions supplying the intensifier tube with a light source to amplify. Even in zero light conditions, utilising the IR, the intensifier is able to create a sight picture allowing the shooter effectively to see in the dark. Incidentally, traditional (analogue) image intensified night vision has pretty much reached a plateau in terms of development. The only possibility is that US mil-spec Gen 3 tubes may be made available for export, but many would say that's a long way off or even something that won't happen.

Note: I use the term 'supposedly invisible' in relation to IR - it isn't if you look directly at the emitter. which you shouldn't do even if the unit is classed as eye-safe, you'll see the diodes glowing red.

The Next Generation Alternative to Analogue NV

Many airgun hunters will already know that the very exciting news on the night vision scene was when, at long last, digital NV riflescopes and observation units finally became available in the UK in March 2010. It had long been rumoured that it was due, and the airgun hunting scene in particular was buzzing with anticipation. So much so, that many waited and held off buying more expensive analogue Gen 2+ scopes.

The first Digital Night Vision (DNV) scope sold out on back-order and Thomas Jacks Ltd the importer of the Pulsar brand (part of the

massive company - Yukon Advanced Optics Global) initially struggled to meet the demand.

The first true dedicated digital night vision scope that became available in the UK and many other EU countries was the Pulsar D-550 Digi-Sight marketed in the UK by NV specialists Thomas Jacks Ltd. At the time of writing, the upgraded version, designated the N750, is now with us, and a seemingly ongoing flow of other high-quality digital kit has also begun to be seen on these shores.

How Does Digital Night Vision Work?



The Pulsar 5 X 42 Digital Nightvision Scope - one of the new breed of Digital Dictators

Digital night vision units use a CCD (Charge Coupled Device) that's specifically optimised (calibrated) to the IR spectrum. This is because approximately 70% of starlight is infra-red so the unit can utilise this ambient light source to the highest level. Because they use a CCD, and not a traditional IIT, they cannot be damaged by exposure to bright lights; for instance, a high-power beam from a lamp, a flash off a distant street light, car headlights etc. Many digital NV products also offer a Video Out (VO) facility so that you can record from them, and some even have a built-in recording capability. Another major difference that many need to adjust to is, at present, digital NV shows a monochrome sight picture, not the ghostly-green image we have become used to with analogue devices.

History in the Making

Loaded with features, the Pulsar Digi-Sight N550 digital night vision riflescope, has several switchable pre-loaded reticles of various shapes, and it also has the facility to allow the owner to upload optional reticles from the Yukon website. Reticle inversion (colour change from white to black and vice versa depending on the target colour) and the enhanced contrast facilities are very useful too. The riflescope also has a jack performing two functions; video out, to conduct video recording to external devices without the use of additional adapters and camera or camcorders, and Video In (VI) which can be used to display information on the riflescope's LCD screen transmitted from remote cameras via radio channel.

It's resistant to bright light exposure and a nitrogen-purged optical channel allows the use of the Digi-Sight N550 in rapid-temperature-drop conditions. It is also capable of detecting fox-size targets out to about 300yds when used with an eye-safe Laserluchs IR laser illuminator, equivalent performance to entry-level Gen 2 scopes when used with the recommended externally-mounted IR illuminator available as an optional extra. For the airgun hunter, the onboard, fully-adjustable IR, is certainly more than adequate for the unit to be of great use for the 12ft lb airgun hunter.

The unit is also very sensitive to artificial IR light sources and can see further into the light spectrum than units using image intensifier tubes, so can see covert IR greater (>) than 900nm. The term 'nm' denotes nanometer and is a billionth of a metre measurement of light.

Digital night vision has plenty of potential for development; sensitivity and resolution will improve; the use of OLED (Organic Light Emitting Diode) screens giving colour images is very possible, and as they reduce in price, other opportunities will open up.

Digital Dictators

Not content with bringing us the first digital NV scope and its higher resolution, higher magnification offspring, Pulsar shocked us yet again with the launch of the incredible Pulsar 5 X 42 Photon. A true 5 X fixed magnification, NV riflescope that mounts using conventional 30mm rings to any standard air rifle dovetails. The built-

in IR is of high enough power to give you an observation range of up to 80-100yds and for airgun use and the ranges at which we engage targets, it is yet another breakthrough in digital devices to choose from. Powered by 2 X AA batteries with a run-time of approximately three hours, the Photon has a fast-focus ocular and uses an illuminating red-centre-dot, German, post-type reticle. Fine focusing for ranges is catered for by the front position main focus ring, operating very much like an Adjustable Objective (AO) does on a conventional day scope. It has a brightness control to adjust the in-view OLED screen to your required intensity level, and even has a video out recording facility for use with a compatible external recording device. The illuminated red dot of the reticle is powered by a single CR2032 3V Lithium battery.



The Nite-Site NS50 has proved very popular since its introduction to the airgun hunting scene and gives a novel heads up TV viewing experience that works very well at sensible ranges

Now for the unit that took the airgun hunting scene by storm; the Nite-Site NS50. Developed in the UK, it is powered by a stock-mountable 12V battery. This system uses two modules which easily attach to a normal day scope. The module that enables you to see the viewed image through the scope is attached to the top of the scope like a gun-mounted lamp. This module comprises a 3" LCD TV monitor facing the shooter with an integral infra-red illuminator facing away toward the target. The second module is a camera unit that attaches to the eye-bell of the scope and picks up the image illuminated by the IR beam, which is then displayed on the top-

mounted, rearward-facing TV screen. Because the NS50 is relaying the image produced by the IR through your scope there is no shift in zero, meaning you can use a scope with front or side parallax adjustment, and even a scope with an illuminated reticle. Range is approximately 50yds depending on ambient light and for the most part it's ideal for many ratting situations. The Nite-Site is easy to fit onto virtually any scope and the stock-mounted battery pack gives approximately five hours run time. The heads-up shooting position isn't to everybody's taste, but you do soon become accustomed to it. Smaller, longer-life battery packs and screen filters are now available. This is the digital device that many feel could lead to even bigger and better things.

Bonus Points

The major benefits of digital units are that unlike analogue devices it's safe to use them in daylight hours. Generally, they're much lighter than their analogue counterparts and as you've read, they're available now as dedicated NV scopes, as well as there being front- or rear-mounted units that you can use with your existing daytime scope. These are an option if you don't want to dedicate a rifle to being solely scoped up with the NV riflescope, but remember, the beauty of digital is the ability to use it in the day or at night. To side with modules (add-ons), they do solve a problem and most rear-mounted units are actually hand-held monoculars that can convert the scope for use in darkness, as they attach at the correct distance for you to use the scopes reticle and side or front PA focus dial or ring. Also they come with, or have the facility to mount, an IR illuminator to give the much needed IR light that enables any form of NV equipment to work.

Since the N550 and N750 (2012) became available, others are now entering the UK, not forgetting alternative sighting devices such as the NS50 mentioned previously.

Time now to look at the devices in relation to our sport and why the airgun hunter doesn't have to have the highest Generation grade of analogue device to hunt effectively, or the latest comparable digital offering – at present, that is. So what follows applies to both analogue

and digital NV, but still leans heavily towards analogue due to the fact that many airgun hunters still use them.

That brings us back to the reason airgun hunters can use these units more readily than any other shooter. Firstly, the limited effective range of the air rifle leant itself to the fact that early Gen 1 and even Gen 1+ had a similar targeting range. Using the IR illuminator that was fitted to these devices also helped to target quarry as it actually made the sight picture brighter and clearer; not forgetting that the infra-red light would bounce off the eyes of quarry, showing up as white-ish/light-green dots, or with the sight image produced by digital equipment, the eyes look white.

Even under the darkest areas at night, direct an IR torch into the area and the shapes may at first be hard to pick out, but the eyes will always give the quarry away. From that initial sighting you can concentrate your vision, focus-in using the scope's fine-focus dial and soon fully see the quarry. On certain models of NV riflescope, an extra IR torch won't be needed as the onboard one will be sufficient. However, if you need one it will often have variable intensity control and the facility to tighten the invisible beam from spot to flood.

Even with extra detection ability, the shooting range always has to be kept within the realms of the ability of the shooter, but having success with these units soon realised that the .177 calibre was the better choice due to its flatter trajectory and therefore more forgiving of errors in rangefinding. Determining range successfully and precisely will only come with practice or by using a laser in the set-up, which will be detailed soon. Most Gen 1 analogue units are only 3 X or 4 X magnification, and some have a narrow field of view. Be aware of this and if possible, try before you buy!

You might think rangefinding is hard enough at night with a lamp, but flashback a moment and consider this: Certain early NV riflescopes had large objective lenses meaning there was a notably increased distance between the axis of the rifle bore and that of the sight. Try judging holdover or holdunder at varying ranges, and those new to these devices soon become frustrated at the regular misses.

Thankfully, the major NV manufacturers and importers knew this was a problem that needed addressing and all the early pitfalls have now been fully rectified.

Observation Devices

These can range from a compact hand-held monocular to a more substantial pair of binoculars. All quality units obviously have IR facility, invaluable as it extends viewing range and also reflects back off quarry's eyes to up your detection rate.

If you want to be hands-free, there are models of monocular that fit onto a head harness. These are designed so the monocular can be flicked down to look through, or when not needed, flicked up out of the way so you can sight through a scope. More advanced, higher Gen equipment is available as head-mounted goggles that cover both eyes when in the deployed position. I've used both types successfully. There will be more on head-mounted NV when we come to those accessories I alluded to earlier - lasers.

Night Vision Riflescope

Classification and specification Generation of equipment has already been explained in full. If looking to enter this exciting branch of the sport, an entry-level digital scope or analogue Gen 1, or better still Gen 1+, unit is more than suitable for air rifle use. However, as with virtually all equipment, you do get what you pay for and if staying with analogue equipment, if possible I'd recommend you do go for the slightly higher Gen 1+ or even Gen 2. Most at this level will have powerful IR integrated into the unit, some with two-stage power settings.



Nightvision binoculars are a far better option when observing open areas for longer periods at a greater distance

How to Mount and Zero the NV Riflescope Correctly

Most NV scopes, even the first digital units, are designed to fit a Weaver-style of mounting rail, so for airgun fitting you need the appropriate adaptor to fit it to dovetails or scope rails. The mount specialists B-Square makes these mounts to suit virtually all air rifles, even for mounting to multi-shot rifles which have magazines that protrude quite high from the action.

Other specialist companies can supply adaptor rails for mounting to rifles with fixed scope mounts such as on the popular Rapid series of multi-shot PCPs that Theoben used to manufacture when they were still actively working and trading in the UK.

Once this is sorted and the scope is mounted securely, like a conventional optic you need to set zero. Due to the sensitivity of the internal circuitry, a traditional (analogue NV scope) can only be used in daylight with the front lens cover cap left in place. The lens cap will

either be a camera screw-on type or more often a push-fit, heavy-duty rubber cover. This will have a small pinhole through the centre that lets just enough light in for you to use it safely in daylight, allowing you to switch on the unit and initially set zero to test your shooting.. However, once set up in this way, always double-check and if necessary reset zero in the night, as this prevents image shift problems and ensures zero is set accurately for the lightless conditions you'll be hunting in. Incidentally, the mount adaptor elevates the NV scope higher than a more conventional optic, but now the devices themselves are of a more reasonable build, rangefinding, although an art that needs fine-tuning for using these units, isn't the almost impossible task it was with early equipment. In fact, certain manufacturers have seen the popularity of Gen 1 with air rifle hunters and are also offering them a conventional dovetail mount instead of the Weaver base. Unfortunately, it still doesn't solve the problem of mounting to a multi-shot PCP with a protruding magazine.

Thankfully, these days, few Gen 1 analogue riflescopes have low-power onboard IR illuminators. However, if this is the case, for upping the observation range, then it's certainly worth investing in an additional IR torch – particularly to the add-on units

NV Stalking

Just because you think you're not going to be seen due to you not using a light, it doesn't mean that you can let your fieldcraft lapse. Using NV means you can hunt in the dark with more stealth, and indeed, when practised, you'll be surprised at how close you can get to your quarry, but the major issues such as, keeping sound to a minimum, feeling your way with your feet across the ground, taking care to prevent showing as a silhouette and, of course, walking up to quarry from downwind all need to be considered. Take the time to familiarise yourself with the control layout of the NV rifle scope.

There are two ways to stalk quarry with NV; either walking forward scanning the area continuously with the rifle up to your shoulder, or alternatively, only bringing the NV scope up to the eye to scan for potential targets, then moving forward and stopping and scanning again. Once within range, you compose yourself, choose a shooting position, and put the scope up to your eye and take the shot. The latter method is

less strenuous on the arms as you're not continuously holding the rifle up, but if using a very lightweight carbine, the former can be a better option for short search periods, especially if actively looking for rats around the side of outbuildings. Ratting will be dealt with soon, but I will say, this method tends to strain the eye and play havoc with your own night vision.

When using this method, it's easy to get totally absorbed scanning for targets as you move, and while moving you can easily stumble over rough ground, or something lying on the farmyard floor. Much better is to sweep the ground ahead with the NV and IR illuminator switched on, looking first to locate quarry with the tell-tale reflection from the eyes. Once spotted, slowly move forward, ideally approaching from downwind until within range. The inexperienced will usually chance longer-range shots, but be as patient as you can and with practice you will be able to stalk to a position well within your set zero. Once in position, take careful aim, slip the trigger and the rabbit should roll over dead. Using a silenced air rifle, the sound of the lead impacting the skull will seem very loud in the darkness, even louder than when lamping – or so it seems. Other rabbits in the vicinity will prick up their ears, but many times they'll hold position wondering what's happened. In these cases you'll be able to get in another shot or possibly two!

Needless to say, a multi-shot PCP is the optimum tool for the job; the lighter the better and one that handles well with the NV rig on board. When using NV scopes in this way, it's also a time when I use one of the specialist slings to hold the rifle in the optimum position. The one I prefer is the Cheater Sling, but some specialist mail order military equipment stores have tactical slings that are suited to the job. The Cheater doesn't attach to conventional sling swivel studs, as is usual, but due to the design, uses elasticated loops that can be fixed virtually anywhere on the rifle. Whilst I often recommend an NV monocular for observation, for this particular stalking technique I don't find it necessary. However, if planning on stalking but waiting up in ambush during the hunting foray, a compact NV device slipped in the jacket pocket is always handy.

Whilst on the subject of accessories, there are other items that are useful and necessary. As always, safety first, so pack the mobile, and although you're hunting without a conventional light source (gun lamp)

to illuminate the target, as with other night shooting techniques, you will still need a light source for other necessary tasks in the field. I recommend a small head torch, especially one with a multi-LED facility. Use the lowest LED setting for reloads or hocking rabbits, then use the multi-LED facility or main beam for locating and retrieving shot rabbits before moving position. Now to one of the most overlooked essentials for any night hunter, a good pair of shooting gloves. At night, your hands have a nasty habit of finding every nettle on the ground, every rusty nail sticking from a wooden post, or discarded piece of barbed wire. I often wear a pair of SOLAG fingerless mitts, by Blackhawk. These are strong but flexible, they offer a tactile feel and as they're fingerless there are no problems loading pellets, changing magazines or twiddling dials. In fact, they're ideal for lamping as well as lightless NV hunting. Indeed, virtually all accessories that have been mentioned for lamping apply, but definitely don't forget the spare batteries for the night vision riflescope, and extra ones if using other devices such as a laser or IR torch.

I've probably made stalking rabbits with NV sound a bit complicated, but it isn't. Once you become experienced, you'll find this a very exhilarating branch of the sport and whilst I've outlined the plus points of shooting with NV, let's accept and address the downsides.

Assessing range is without doubt the major obstacle to overcome. Whilst you can quite easily pick out the targets with the sight, as your view through the scope is very tunnelled, the view of much of the ground from your position to the target is virtually non-existent. Granted, this is the same when using a conventional scope in the daylight but consider how many times you weigh-up the target with the naked eye before putting the scope to your eye to shoot. Basically, you've assessed range well before you begin placing the crosshairs on the kill-zone, but with NV your first sight of the target is through the sighting device. The only and best way of determining range to the target is by one of two means; using the reticle as a guide and bracketing, as you would with a conventional scope, or to use a laser in your NV rig. This can either be a conventional red-dot laser or a truly invisible IR laser. The latter only being visible when viewed through an NV device.

Whichever you use, I first recommend you practise in the following way: Draw and cut out from a thick piece of cardboard the profile of an

average-sized rabbit and place it upright on the ground. Walk 25yds from the target and using the NV scope reticle, assess a reference point as you would if using the reticle of a standard daylight scope to bracket the target. Some reticles will help you to some extent to bracket the head, others the body. As the scope will be on a set, fixed magnification you can then use this as a starting point for ranging.

However, accurately judging the size of a rabbit through NV equipment is almost impossible so I'd say use this as a very rough guide and rather use a laser in the set-up as will be outlined in full later.

You're still practising in daylight, with the protective cap covering the objective lens. Now, as we've covered before on setting a field course for lamping, do the same but now attempt it with the NV. On your first practice runs in the dark you'll probably be quite dismayed at your results. There's no peeking over the scope as in daylight hours, or using a lamp to illuminate the way. Don't get too disheartened, though, it will come and you'll eventually become adept at rangefinding in what must surely be the most difficult hunting scenario of all. Now, with a laser in the set-up, you obviously need to set the laser to coincide with the set zero of the scope reticle. More on my personal preferences for this later, but the basics for proper usage still apply, which are: Depending on how it's mounted, either above scope or under the barrel any laser set-up will give you the reference you need to assess range, and as you're stalking in a very stealthy manner whenever possible, it will be practical more often than not. Stalk carefully up to the target until the laser coincides exactly with the reticle crosshair aim-point (that is if set conventionally) and take the shot, safe in the knowledge that you can aim bang-on as you're at your set zero from the quarry. Incidentally, as I use both IR laser and traditional red-dot laser, I don't have a preference to lasers for NV shooting, but one thing I certainly now do is to set the dot mark of the laser to one side of the centre of the crosshairs at the set range that my scope zero is set for. Let me explain why: The image intensifier will magnify the dot of either IR or conventional daylight red dot, and I've found that the dot, when set to coincide with the centre of the crosshairs, can obscure precise aiming. It's worth mentioning that, if you are using digital NV – a conventional red-dot laser can be too bright because the internal circuitry of digital equipment is sensitive to the laser wavelength

and intensity. However, you can reduce the brightness of these scopes' sight picture to compensate, or better still use an IR laser of which you'll read more soon.

Staying with conventional red-dot lasers: Although I use a pressure pad switch just to dab the laser on to determine range, it isn't always shining there to obscure the crosshair, but I do ensure that I've set the laser to the NV scope so it precisely hits the horizontal line of the reticule at the set zero point. Now while this suits me it may not suit you, but try it. I think you might just find setting any laser up this way is better for integrating one into your rig.

Now to the practicalities and my recommended method of actively pursuing and seeking out quarry when stalking with NV, and presuming it's on a specialist sling, the way is as follows: The rifle combo should be hanging in front of you as previously outlined, but only with your neck through the sling – not including a shoulder. The sling supports the weight of the rig and the rifle is steadied and angled slightly away from the body, with the right hand cupped under the forend, and the majority of the stock just resting on the underside of your right arm. The opposite obviously applies for left-handed shooters.

The reason for this is that if the eye-piece is allowed to rest against clothing, or to direct back in the direction of your body, the intensified light image that's created by analogue NV (the green glow) will be reflected off your clothing or face. If this is allowed to happen, you might as well be walking around holding a green torch. The rubber eyecup shields the glow from the side, but not when put slightly askew at the side of a solid object. It's equally important not to pass your hand or part of the arm over the eye-piece if reaching for something as this gives a solid surface for the green light to reflect from and show forward of your position. Because of this problem, you should also adopt a set routine for bringing the rifle up to your eye for scanning and aiming. When bringing the rifle to bear, whilst moving the rifle upwards, also push it out to your right (opposite again applies for left-handers), and then bring the gun up fully until the butt is in the shoulder, ensuring that the eye-piece is facing over the shoulder. When ready to scan or take the shot, bring your aiming eye into the eyecup from the side, carefully but purposely, without too much delay.

However, you can forget all I've said on using an NV scope that has an open, more conventional rubber eye-piece, if you can obtain what is termed a gated eye-piece to replace the original. These are closed (the inner rear at the back is designed so when not in use it actually fully covers the ocular lens), but press/push your eye into the rear of the eye-piece and the covered inner opens, so you can see through to obtain a full sight picture. I prefer these if using an analogue unit, so check if there is an option for the NV riflescope you choose. Incidentally, you'll notice that some have a habit of catching condensation more easily than others. This can be annoying as you need to wipe the rear lens, and depending on conditions, this can be infuriatingly all too frequent, and don't forget; if anything goes near the eye-piece the green light will reflect so take this into account when clearing the lens with a suitable lens cloth.

If you thought magpies a pain in the day, spoiling a stalk, or calling out to all and sundry, when they catch sight of a lamp you should hear them when they spot you skulking near the hedges at night – and you think NV makes you undetectable? Magpies aren't the only problem, trust me, a covey of partridges suddenly flushing-up as you stalk towards a target can bring on minor heart palpitations! Also, if you surprise a rabbit and are too close for a shot, don't use the 'backing away' technique as is more useful with rats. Stand stock-still and the rabbit will in most cases shuffle around, or hop away, but often stop and sit within range. Now you can target the quarry and as you're operating with much more stealth, you usually won't be crawling within range as on a daytime stalk. You will have to stop at times, but this is usually so you don't show your silhouette.

The bonus of hunting in this way is that you are more relaxed and can easily adopt a more stable kneeling shooting position. This allows you to steady the rifle and the forward knee supports the weight of the combo for the shot. If you do take the shot standing, tuck the elbow of the leading arm into the hip for support. Some analogue scopes are still hefty, but the extra weight does have a benefit in that it can at times help steady aim.

It must be noted that actively hunting with NV can be very tiring both physically and mentally. As with lamping, rest when needed, there's no need to rush because, in effect, you have all night!

Now to the subject of the clothing you wear: Granted, foliage patterns aren't needed, but dark, non-reflective, rustle-free clothing is a must and in my experience so too is a facemask and gloves; the latter not only for concealment but also for reasons given earlier in this chapter. Incidentally, many experienced pest controllers operate at night in black boiler suits and black gloves and masks. It can sometimes be the more appropriate form of clothing to wear.

It's often said that animals can't detect infra-red light, but if you continuously switch a powerful IR illuminator on and off the animal does seem to notice it and will eventually get wise to it. Use the IR sparingly and set on the lowest setting that you can still clearly identify the target. Never forget, no matter what is stated - as a matter of safety - never look directly at any IR emitter or laser, be it a conventional red-dot or a truly invisible laser projector. Your eyes are very precious, so don't take risks such as this!

NV Ambushing

The method is exactly the same as for daylight ambushing and with the added advantage that you're able to target them in darkness with the highest level of stealth, but you must adhere to a few strict guidelines to have the best results. Firstly, you need to position yourself within range of a well-used entrance point to a warren or a passing point from field to field (usually an area of hedgeline), or a place where they sit out near a warren before they move further into the fields to feed. As rangefinding is the biggest pitfall of NV use, I recommend you choose the main entrance hole and pace 25yds from that to a position downwind to use as the shooting point. I'll more often than not put two stones either side of this entrance point, setting these at 5yds beyond the entrance and 5yds closer to my position. This gives two clear range markers at 20 and 30yds. In effect, you've chosen a 10yds long killing-zone. If you've chosen well, there's a lot of traffic that can pass through that corridor.

Items you'll find useful for ambushing in this way are a pair of NV binos or an NV monocular, and to use a multi-shot PCP on a bipod. Incidentally, using a pair of NV binoculars or a monocular is preferable as they give less strain on the aiming eye as you diligently watch the area for activity. Don't be tempted to use them too often, though, as you ruin

your personal night vision and yet again, remember if they're analogue the bounce back of the green sight picture can possibly bathe your face when you bring them up or take them away from the eyes. When you do use the binos, only switch them on when you're looking through them, and when you take them away from your face do so in a swift fluid movement preventing the green sight picture in the eye-pieces finding anything solid to reflect off. While lying in wait, use your ears as much as your eyes. You'll hear rabbits plucking at the grass, scratching and generally moving around in cover. If your eyes have become accustomed to the dark, not 'spoiled' by overusing the NV, then you'll possibly see their shapes move out into the designated shooting area. This is the ideal scenario, as once spotted you can put the rifle in your shoulder, eye in the rubber eye-piece and switch on the NV scope.

As the sight image develops there should be rabbits in your sights and if all has gone according to plan, one within range and soon in your bag. No need to rush the shot as ideally you're operating totally undetected. Take careful aim, and shoot. Once you've shot one, don't rush to pick up as long as it's a clean kill. At night, and shooting in this stealthy manner, more rabbits soon appear and are certainly not troubled by the fallen ones you've dispatched.

Incidentally, while watching and ambushing rabbits in this manner, I've discovered an unusual trait of rabbit behaviour that you, too, can put to good use. That's actually to use a fox call, one that mimics the distress call of a small rabbit or vole, to entice rabbits out into the open, even towards your shooting position. For some reason, the rabbits are drawn to the sound rather than repelled. I've had rabbits come running in to a 'squeaker' and standing like knock downs well within range. It can also make them move further out from cover, presumably so nothing can pounce on them - strange behaviour, but a trick to use if they're keeping out of range or too close to tall cover.

NV Rat Shooting

All the above information and tips for NV use apply to ratting except that you'll be shooting indoors and around barns and outbuildings. Therefore, the safety aspects remain the same for indoor shooting, and targets will more often than not be closer. As you can get close to your quarry

anyway using NV then I'd advise you to reset zero down to 20yds maximum, maybe even less at 15yds. Stalking around the farmyard at night can be particularly productive. If circuiting the perimeter of buildings, where possible walk the same distance as your set zero from the walls, continually scanning the base of walls and along the top of any materials stacked near it for scaly tails. Once you spot one, position yourself as near as possible to the set zero and shoot. If you come across one much closer than your set zero - don't attempt to adjust your aim for the range, rather physically back away until you're at the required distance, as close as possible to your set zero, and then take the shot. Indoors, you can patrol in much the same way, scanning the interior, especially the beams and girders, anywhere above that can provide the rat with a walkway. Alternatively, use baiting-down tactics without a light and shoot them with the NV riflescope when they come to feed. Also if you know an area that has a lot of rat activity, make yourself comfortable on a chair or bale of hay and sit and wait. This is when using an extra aid such as an NV monocular for spotting is very advantageous. This negates the need for you to hold the rifle up continually, to use the riflescope to survey the roof space. Using an observation aid keeps the strain down to a minimum, but be mindful that when you spot a potential target you make the least disturbance when swapping over from observation aid to riflescope.

As mentioned in the section on lamping, using these devices gives you the edge on the quarry. With the IR illuminator switched on, work along the areas the rats are known to frequent. You'll soon spot the animal, even if it only pops its head out of a hidey-hole, by the infra-red light reflecting off its eyes. Once you spot a rat within range, put the observation aid down and carefully sight-in using the NV riflescope.

IR and Conventional Laser Sights

The introduction of IR lasers that emit an invisible beam and a dot (aim point) on the target are fascinating. Even the projected dot is invisible to the human eye until viewed through a device incorporating an image intensifier. These can be either a head-mounted monocular, NV goggles, or by looking through the NV riflescope. The supposed benefits aren't as cut and dried as you might think though. You can, albeit in a limited

manner, use the IR laser as a primary sighting device, but it must be remembered that this has very limited accuracy potential. Some use them by setting the dot to a range of 20 or 25yds and shoot rats 'from the hip' as they spot and sight targets through head-mounted NV equipment, place the dot on the kill-zone and shoot. In theory all's well and good, but the reality isn't nearly as good as it sounds.

How the laser is mounted also has a bearing on the accuracy. If you're intending to use an IR laser in this manner, the laser should ideally be positioned as close to the bore line of the barrel as possible, so it follows the pellet path more closely until trajectory drop takes over. Also, the range that the laser's set for needs to be strictly adhered to, I recommend 20yds maximum. Even at this range you'll only have a few yards either way of set zero until the dot (set aim-point) is inaccurate. So if you use an IR or conventional laser in this manner, use a special mount to attach the device to barrel or silencer, and be very disciplined in your shooting and well practised in estimating range.

As I've previously outlined, I personally feel lasers of both types better serve the shooter when used as rangefinding aids. The way it works with an NV riflescope being the same for how a conventional laser is used with a conventional riflescope. Incidentally, when viewed through analogue NV equipment the aim point of both IR laser and conventional red-light laser appear as a very light green, almost white dot. Sighted through digital it will appear as a white dot. As I've mentioned previously, rangefinding is very difficult with NV riflescopes and this is the area where shooters will find lasers to be of most benefit.

Because rabbits are once again a major agricultural pest and rat numbers are reaching ever-higher levels, night shooting is a part of airgun hunting that will always thrive as long as we're legally allowed to do it. The air rifle is often the optimum tool for cleanly dispatching them, and yes, that includes rats because even with so-called 'designer' poisons and clever traps, the rat can build up immunity and can easily learn to avoid a trap after a near miss.

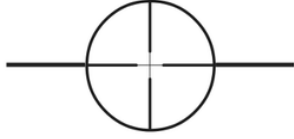


Ambushing using an 'add-on' NV module fitted onto the eye-bell of a day scope

With lamping kit at an all-time quality high, and NV devices becoming more affordable, the opportunities for the night hunter are many. Indeed, where NV goes from here is anybody's guess. Certainly better quality equipment will become available as long as its sale to the civilian market isn't restricted by sanctions.

Whilst writing this book I've seen many more thermal imagers to come into the UK, the price far exceeding the practical use they have for airgun hunters, but these are yet another device that will detect animals at night and pick up the heat given off by them. There's little use for these expensive gadgets in our sport, though; more so for gamekeepers, professional deer stalkers.

We should remember one important factor pertaining to this branch of our sport and that is, if there's one thing guaranteed to get an air rifle hunter granted permission to shoot on a farm, it's the initial offer to sort rats which are causing destruction in the barns and grain stores, and rabbits destroying the fields.



14

FAC Air Rifles, Options, Ammo and Accessories

Throughout this book I've made mention of FAC- (Firearm Certificate) rated air rifles, usually with the slant that they give more kill-zone options on quarry encountered, but this is only one benefit. Others include a harder hit at a given range, a flatter trajectory over that range, and they can be used with more safety and in more situations where a live, round-bullet gun (such as a rimfire) is either too powerful or unsuitable due to other factors.

Not only that, but the interest in FAC air rifles has undergone a huge surge in popularity from both the specialist airgun publications and, in turn, airgun hunters alike, driven by an increasing number of gun manufacturers shifting emphasis towards the development and promotion of a new breed of what can best be termed 'hi-power-super-guns.'

This has resulted in much change in relation to the air rifles themselves, specifically the power levels they are designed to run at. Coupled with this are the new larger calibres with ammo specifically designed and manufactured for them. I'm sure you can realise, the whole genre is now an even more specialised sector of the airgun hunting scene than it ever was before.

The High-Powered Air Rifle

I still stand by original statements as written in the First Edition – 'most airgun hunters may never want to own or use an FAC-rated air rifle, but it's a tool in the armoury for the all-round airgun hunter and at times can be very useful, albeit in reality it's still a very specialised piece of kit.'

First, though, you obviously need to go through the process of applying for a Firearms Certificate (FAC). This is usually what puts most people off, but don't be deterred because after filling in the relevant application forms (Form 101), as long as you can satisfy your local Police Firearms Department that you are a fit and suitable person to own a firearm, it's just a matter of going through due process, and you have your FAC. Of course, the fact which will be addressed after your initial application and visit by your Firearms Liaison Officer (FLO), is that you need secure storage for the firearm. That means that a gun cabinet will be needed because, yes, that's what an FAC air rifle is – a firearm. That's a factor that should always be remembered when and where you use it, and before and after using it, it stays where it belongs, inside the gun cabinet, locked away secure and safe.

Now, even after that very brief overview to obtaining an FAC, you'll probably be asking yourself if it's worth the hassle of applying and satisfying the responsibility of ownership criteria, just to have an air rifle with a bit more 'puff!' Quite frankly, if you're content to hunt at 12ft lbs then, no – but a resounding, yes, if you want to broaden your shooting horizons and experience air rifle hunting to the absolute max and eventually, maybe even move into other shooting disciplines. Notice that I've refrained from saying, 'if you're serious about shooting, you'll get one' which is something I've heard many times from FAC-holders in relation to non-FAC shooters. That's nonsense because a hunter using a 12ft lb air rifle can be just as much, if not more, serious about his sport than a fully certified, ticket-waving, power-blessed one..

The Power Game

In previous chapters of the book we've dealt with hunting with a rifle of legal limit. That's why a good phrase to use for 12ft lb air rifle hunting is 'precision over power', but what about when you can have precision with power? That brings us to address one of the most popular misconceptions surrounding FAC-power-rated air rifles, that extra 'oomph' gives you some sort of super-long-range ability. It doesn't, but depending on how powerful they are, they do hit far harder at ranges right out to 80yds and in some cases well beyond, but the rifle still needs to be fired accurately.

Also, weather conditions, strength and direction of wind etc ... need to be favourable for longer-range shots. In reality, the benefits an FAC-rated air rifle gives are a flatter trajectory, a harder hit when the pellet reaches the target, and the winning fact that at times it can give you more kill-zones to aim for, depending on quarry and its position to your shooting position.

Indeed, mention hi-power rifles and it does seem to bring out the dreamers. Shooters with ridiculous claims that 'such and such' rifle running at 'such and such' ft lb puts pellets straight as a die out to 'X' many yards. This is nonsense. If anything, the FAC air rifle is too specialised for most shooter's requirements. Let me explain that statement.

Overkill, especially at close to medium range, can easily come into the shooting equation with a bullet gun, and that's why the hunter using a 12ft lb air rifle fills a niche. He can operate where other types of guns are unsuitable and the shooting situation requires them – for instance inside barns, around outbuildings, land with footpaths on or around it, smallholdings with little land, dense woodland etc. Now, taking this statement forward, the FAC air rifle shooter has a firearm that to some extent, and to coin a phrase, bridges the gap between a legal limit air rifle and a live round rimfire. A .22 calibre air rifle with 30ft lbs of muzzle energy is still only starting to nudge up to a .22 rimfire, short in terms of power level, but even so, the hi-power pellet is certainly not as potentially dangerous as a bullet fired from a rimfire. Even at medium range, a hi-power FAC air rifle can be too powerful for the job in hand. Incidentally, despite popular misconception, ricochets aren't as nearly dangerous on open land as some suppose. The reason being, a deflected pellet soon runs out of steam even if fired at high velocity. More so, you should be mindful of what lies behind the target; the major consideration for any shot taken with any sporting gun.

So, that brings us back to the fact that, in effect, it's only out to a certain range that the big power air rifle delivers the big power punch. After a set distance, as you'll read further in this piece, even a pellet fired at hi-power is already dropping, quite radically and eventually like a stone, whereas a rimfire bullet continues for up to a mile if unobstructed.

See how the FAC air rifle can be most useful, and the situations in which it caters for a much safer type of firearm to be used?

Incidentally, mechanically operated rifles such as springers or gas-rams specifically manufactured to be capable of hi-power are few and far between. Granted, most springers can be tuned-up to run at higher power above the 12ft lb legal limit, but unless you're only notching it up to 16-18ft lb, it's best the rifle is built to achieve those power levels from the outset. Also, higher power in a springer often means more recoil, thus accuracy can be affected. So that brings us to the PCP power source and this is where you'll really appreciate the hi-power capabilities with no recoil.

However, a downside of a hi-power PCP is that it gives fewer shots per charge than its 12ft lb counterpart, so that small bottle you use for home fills is best now taken into the field for top-ups, and an even larger diver's bottle kept at home. If you don't have access to your own filling gear or a diving centre close by for filling the larger bottles, you could opt to acquire a rifle that uses buddy bottles, but always remember to take enough pre-filled spare buddy bottles into the field. However, for the design of air rifles that use a forward- or rear-mounted bottle to store compressed air, the bottle is more likely these days (except on older rifles) to be fixed, so is filled on the rifle like many 12ft lb air rifles. There are certain accessories and kit that will help you top-up in the field and there's a section devoted to those and others later in this chapter.

Another point pertaining to hi-power FAC rifles is that most are full-length. Not only due to the capacity of the air reservoir being limited in a carbine, but also a short barrel of a carbine doesn't impart enough spin to the pellet due to lack of rifling. For a 12ft lb air rifle, all carbines are suited to impart enough spin on the pellet for optimum accuracy, but for a hi-power heavyweight slug it benefits from having more barrel to travel along. Some FAC rifles even have longer barrels than their standard length, legal limit counterparts.



The FAC power rated air rifle is a very specialised piece of hardware

Now to a very important aspect of hi-power and indeed for legal limit air rifles, which is the need for a top-quality, highly-efficient sound moderator.

As you've seen mentioned much earlier in this book, the muzzle crack (report) from a PCP is loud when unsilenced – well, it stands to reason this is more pronounced from a hi-power rifle. Here you really need to make an informed and well-considered choice.

Production or Custom

All gun manufacturers of hi-power air rifles produce or have produced for them silencers that they recommend for their 'on-ticket' air rifles. Many now actually have specialists in the field to design moderators for specific rifles. For instance, Daystate excel in producing some of the finest hi-power air rifles available, but make no secret that they recommend the Twink Silencer, from A&M Custom Gunsmiths or the special FAC-rated Hugget, from Milbro. You need to make this a priority when considering purchasing a certain manufacturer's hi-power air rifle, but generally any of the company names you've heard mentioned for being established at air rifle customising can build a silencer to special order.

I mostly use John Bowkett's custom silencers. He first began developing special reflex designs, which are superb, and amongst the quietest you can purchase. I now have them on most of my customised FAC air rifles. If you have a silencer especially made to work almost in harmony with the rifle, then you will have the best you can get. No silencer can cope with all the power levels and calibres now becoming reality so if the sound on discharge is a factor that concerns you, please take heed of the advice given.

Don't forget you need to have provision to own one and it needs to be included on your licence when you are granted one.



Some of the quietest sound moderators for FAC air rifle use are often manufactured by the specialist custom gunsmiths

Choosing the rifle itself can become an issue because you don't want to make a costly mistake. Most FAC air rifles won't hold value bought from new because the resale market for them in the UK at present is still relatively small. Good for those looking to pick up a bargain, but if you're set on a new rifle be warned that, as with buying a new car, once you leave the showroom your luxury new 'boy's toy' becomes a very expensive loss.

I'd advise most shooters new to FAC after getting the relevant paperwork sorted (and of course if they have one in their armoury), to have a rifle tuned-up to a suitable power level by a reputable gunsmith. Alternatively, buy a good quality, used PCP air rifle suited to tuning and have that powered up. Just remember to get it put on your ticket. This is the less expensive route into the FAC power game and will help you assess if your hunting really requires one.

As for choice of sights: Any of your favourite hunting scopes will suffice but many soon require optics with a bit more power which more often equates to a scope with a magnification of either the now accepted 4 - 16 X or 6 - 24 X range. Also, the more you come to realise the

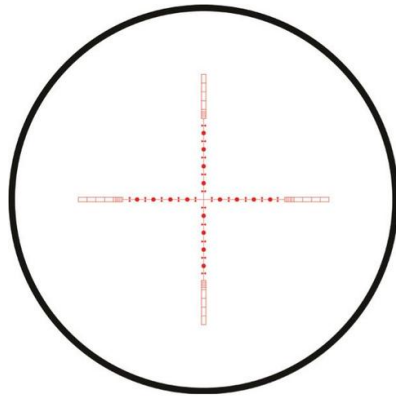
nuances of the hi-power pellet's flight path, then you'll probably come to feel a scope with a multi-aim-point reticle could be very beneficial to you.

Scope Options

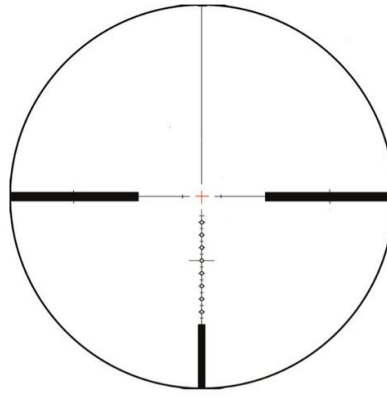
I once mainly preferred the mil-dot reticle, using scopes that utilised this design almost exclusively on virtually all my FAC air rifles. Don't get me wrong, this is still a good option but there are now far better designs that many will find much more to their liking.

Choosing the optic to marry up to your hi-power air rifle is also very much dictated by personal choice, so I'll only briefly outline the two models I currently favour as I find they work best for me in a variety of calibres. The requisite I favour is that there is sufficient information mostly on the lower stadia of the reticle, because after you've set a zero, due to the pellet then dropping, depending on pellet weight and calibre this can be relatively slow or a quite pronounced change (drop) in trajectory after the set zero.

I've begun to favour two reticles based on the standard mil-dot package; the AMD (Amended Mil-Dot) as used in the MTC Optics Genesis LR 5 – 5 X 50 SF IR, and the half-mil dot reticle as seen in certain scopes from the Hawke Sports Optics stable. The 4 – 16 X 50 Sidewinder SF IR I find is a hard spec' optic to beat for 12ft lb as well as FAC-rated air rifle use and like the MTC offering is a fully-featured scope.



Hawke Half-Mil Dot



MTC Optics AMD

As their names suggests, set on 10 X magnification both scopes are a true mil-dot design, the Hawke giving lots of alternative aim points and can be used for rangefinding using the bracketing technique. It offers masses of aim points for both holdunder and holdover, and for aiming off, if you are confident judging wind. Alternatively though, the AMD can be used as a conventional mil-dot if required – obviously due to most of the aim points being set on the lower stadia - not for bracketing. Therefore, this scope is a more dedicated long-range optic offering lots of very useful aim points for holdover. As you'd expect there are now many other reticle designs that you might find more suited to your particular liking.

As we're now dealing with choosing hardware, I feel this is a good place to look at the accessories to help you in the field when shooting FAC.

Accessories for the FAC Airgun Hunter

Many accessories that the hi-power hunter will find useful have already been fully detailed in Chapter 9 because of their benefits for 12ft lb legal limit air rifle use. Due to this, I'll only mention them briefly as a reminder. These are; a shooting bag/gun mat, bipod, a good-quality rangefinder, and a pair of binoculars or a monocular. In relation to rangefinding or estimation, some find a laser incorporated into the set-up also helps – refer to Chapter 2 for its usage.

Of equal and even more importance to the FAC hunter is the need to keep the rifle

topped up with air. In that respect, lugging heavy diving bottles into a field isn't an option, but taking a smaller filling bottle is. The accessory to transport a 3L bottle for in-field fills has never been bettered than to use the specifically designed Ranger 6 Combo-Pack from Napier. This enables you to carry the bottle, as it sits securely inside the rucksack which also has pockets for various accessories you'll find useful for helping you top up the rifle. Best-Fittings are a one-stop shop for kit that helps you fill your PCP more efficiently. No surprise then that they also supply mini-compressed air bottles complete with fill line and air gauge, and for a few top-ups they're so portable that they'll fit into the large pocket of a gun bag.

If shooting from a hide, use a set of triple-leg shooting sticks that you can comfortably sit behind and have a stable forward rest to take precision shots. Your seat can be one of the many rucksack chairs. Most seats they employ fold inwards so they form a frame for the rucksack attached when used for transportation, and then when you need it, allow the seat to open so you have a quick and useful seat. A gadget that some very ardent FAC shooters are now integrating into their kit is a windometer. As the name clearly suggests, this measures wind speed. If you think a device such as this may help you then it's there to be made use of. More so I'd say, learn to judge wind speed, and only experience on the range or dedicated in-field practice can help you attain that.

We now come to the major bone of contention, that being what calibre to choose and at what power? If you thought 12ft lb airgun hunters were divided on calibre choice then add another variable such as power in relation to calibre and you really do open up another can o' worms. While some swear by .22 calibre at 40ft lb, others are equally smitten with the same calibre fired at 24, 26, 28 or 30ft lb. To throw even more controversy into the pot, some would say you cannot beat .20 calibre at 24ft lb or .177 calibre at the same, or at 18 or 22ft lb. The truth of the matter is once again, not only is it very much up to personal choice, but also there is a simple equation of what I term, 'balance of power.' This, we are coming to, but basically it's the relationship between the weight of projectile fired to the power it's fired at.



Kit required for the long-range FAC shooter – note the laser rangefinders, binos and shooting mat – bunnies an optional bonus

Incidentally, don't discount the much-maligned and misunderstood .20 calibre of which I now have much experience and regard for, since adding one to my armoury. I've had many memorable hunting forays using this calibre since I acquired a Daystate AirWolf running at 26ft lb in this calibre using 13.73gr JSB Exacts – it was a very considered decision but one I'll never regret making.

Balance of Power

As previously established, any calibre pellet fired from an FAC-rated rifle has a flatter trajectory over a given range than its 12ft lb counterpart. Also, if the pellet has been placed with accuracy, it transfers a mighty 'whack' at the target. Power, as I said at the beginning of the book, is somewhat of a misnomer and definitely in the case of the FAC air rifle, all too easily misunderstood. Many experienced FAC air rifle shooters recommend power levels of 18 – 24ft lb. Some might feel it's not worth the trouble getting an FAC for this rating, but remember, this is

approximately giving you double the power of a 12ft lb off-ticket air rifle.

This is where the term ‘balance of power’ becomes very apt. In respect of power (ft lb) in relation to pellet weight (grains), to gain optimum performance from the set-up becomes somewhat of a balancing act; matching the weight of ammo and power of air rifle. As selection and choice of pellets in .22 calibre is greater, then this is probably the best calibre to use as an example to illustrate this phenomenon.

If shooting an air rifle with a power level up to and including the mid-20ft lb bracket, you have a far greater choice of pellets that will withstand this power. I could compile a list of my current recommendations for various calibres and power levels, but I’ve no doubt that new ammo will have come along before or shortly after this is published. However, what does hold true is this: step beyond the 30ft lb power mark and many that are capable at 26ft lb become more and more unstable in flight. Initially, you must think this a power band that is a barrier – but ...

Old Dog New Tricks ...

I’m sure most airgun hunters realise that they are on a never-ending learning curve. Personally, my initial views of ammo weight to power rating are now much more open. However, these views still relate to what I term the balance of power. Let me explain.

After writing the first edition of Total Airguns, I was fortunate to have out, for quite a lengthy test period, a rifle that in many ways opened my eyes to the possibilities that are available when using higher power levels than 12ft lb. The rifle was the Air Arms S410 Xtra FAC, and at the time it was quite unique due to it being one of the few rifles that allowed the shooter to vary the power by turning an external, serrated-edge adjustment dial. This is situated on the right of the action, and allows the power to be adjusted from approximately 10ft lb up to about 32ft lb. This was quite some time ago and the reason that I use approximations, but it didn’t take long until I began to realise that the facility to vary the power of this rifle wasn’t a gimmick, and it had great potential for the open-minded airgun hunter.

Once, we only had a few options of pellet that could withstand hi-power air rifle use. The most widely used was the one-time heavyweight champion of the FAC-pellet world – the Bisley Magnum. At 21.4gr this is the heavy slug that will withstand being ejected from the air rifle at 40ft+ pounds of power. Fantastic for the time and still is in the right circumstances – like the H&N Barracuda which is almost identical in weight and profile.

Now, with new hardware and superbly manufactured pellets if you try a variable-power air rifle such as the one previously mentioned, or its successor, the S510TC FAC then it will enable you very much to begin to realise that the gap from legal limit to any rating up to 30ft lb is a fascinating journey of discovery.

Just one of the many up-graded features of the side-lever action S510TC FAC variant is an even more precise power adjuster. In fact, I can fully understand and appreciate why this rifle can be classed as the most versatile air rifle currently on the market in either .22 or .25 calibre. Considering the latter, I have to admit that it enables hunters to use the big old ¼” slug to the best of its ability, and for the most useful purposes that this calibre can be used. Powered down and set at a suitable zero using a pellet chosen from the many new types of .25 calibre ammo available, it then becomes a rat-clobbering and/or feral-pigeon bashing tool par excellence, and safe to use in an enclosed area. Power up, change ammo, re-zero and you can be knocking down rabbits at ranges out to 60yds+ as long as your shooting ability is up to it.

When running at full power you’re just getting into the area, in my opinion, that a .25 calibre slug shows the reason it was intended for. You’ve still got a quite loopy trajectory to get to grips with, but it’s certainly one to consider for the sensible and most useful way to use a .25 calibre air rifle and for some, a .22 calibre.

I feel the need to highlight the S510TC FAC as it’s possibly now the most versatile of the new breed of air rifles in FAC format currently available. Now, back to what I feel is of more general importance pertaining to the FAC airgun user who chooses a rifle in one of the more traditional calibres.



At one time the heavyweight Bisley Magnum in .22 calibre was the one to beat for FAC rifle use...

Be Sensible ...

I feel I've more than established that power isn't everything, neither is it all about the weight of the projectile. We must also consider the downsides and for most FAC-rated, PCP air rifles these are a low shot count per fill and the fact that they are noisy. The reason being, they expel a high volume of air with each shot. In fact, I feel the real bazookas that have come on to the scene may become a niche within a niche, as most made in the UK are destined for export but some professional pest controllers will, and do, find them useful – more on the very hi-power rifles at the end of this chapter.

Consider this statement: 'There is much more involved than just brute force when you have an FAC air rifle at your disposal.' That sentence is even more relevant now and one I fully came to realise the meaning of after testing various weights of pellet that could withstand being fired at

30ft lbs – a power level that I have already detailed is a very popular power rating in .22 calibre.

Obviously, when I began experimenting with pellet weights to power rating, a lighter pellet than the bruisers I was initially advised to use was needed to fully appreciate this. After listening to experienced shooters who also sought more versatility from this power level, I eventually discovered a handful of pellets in what can be termed the ‘upper- mid-weight’ bracket that could actually cope with the rigours of that heft without showing too many flyers or blown-out skirts. These were the Air Arms Field Diablo, Crosman Dome and Webley Accupell, and of course JSB Exacts, amongst only a very few others.

What I’d proved to myself and what actually happened was, I’d hit on a good level of consistency with a far flatter trajectory. Let me explain.

Speed Limit

After chrono checking the power, Bisley Magnums were generating an average of 800 f.p.s at the muzzle. A .177 calibre 12ft lb air rifle isn’t travelling much faster and the trajectory isn’t that different, the bonus, of course, being the hitting power at the target! But remember this, an air rifle with a power level of 12ft lb only needs to deliver 4ft lb at the target for the much required humane kill on a rabbit at practical distances. It followed that stepping the pellet weight down, certain pellets did indeed show they could retain accuracy and still have more than enough whack at the target to dispatch any legal pest species cleanly.

Despite the apparently impressive figures for FAC-rated guns, never lose sight of the fact that the lead pellet does not offer the ballistic efficiency of a rifle bullet, which in comparison will be less influenced by exterior forces.

This became apparent when going over 1000 f.p.s with certain pellets because accuracy suffered considerably. However, if you keep the speed sub-1000 you could find a lot that offer better performance suitable for your rifle and requirements in this calibre and power level.

Air Arms Field Diablo (16-grain) immediately showed a remarkably flatter trajectory and accuracy. It didn’t go supersonic as a lighter pellet would and left the silencer with the lowest report, but had enough

robustness of construction to withstand the power level it was subjected to.

The Air Arms Field Diablo Plus weighs 18-grains (gr) and I use this example as that extra two grains does make a marked difference. The muzzle velocity dropped as expected which translated to approximately only ½” below the standard Field Diablo at the previous set zero range. Granted, not too shabby, but a slower pellet is more susceptible to wind-drift and this means the shooter has to contend on certain days with factors that result in the pellet not performing that much better over the 16-grain Field. Also consider this: With a zero range of 45-yards, only 15-yards further out, then should the wind blow it will result in a miss or wounding.

As previously mentioned, there are other pellets to consider, but now using these, my 30ft lb .22 calibre combo has become for certain situations a much more versatile and accurate tool. I hope you can see that in FAC, the key words can be ‘versatility’ and ‘accuracy’. Test and try other brands around the weights mentioned as there are many more than you’d first expect; mostly dome heads or what are often termed ‘air bullets’.



The FAC air rifle often allows you to take kill shots you can't otherwise take using a 12ft air rifle

Air bullets obviously get their name due to the shape, not the fact that they actually use a powder charge to propel them. A typical example of this is another heavyweight pellet the Logun Penetrator (still around and packaged as such, when you can find them) but also known as the Exterminator under another brand. At 20.5gr in .22 calibre and 9.5gr in .177 calibre this air bullet is very efficient in certain rifles.

Another is the H&N Rabbit Magnum II, at 15.74gr in .177 calibre and 24.7gr in .22 calibre they're obviously designed for FAC use again having a profile that many class as air bullets.



The H&N Rabbit Magnum II is a typical air bullet design

Closer inspection of the twin-ribbed outer shows that they're actually chamfered steps where the bullet head size tapers slightly back to meet the first step, which then angles (chamfers) back up to match the head size, and then it tapers back again a shorter distance to meet the second, which uses the same design then continues as per head size until the rear. Preceded by the highly regarded and hard to find Eley Magnum (40gr), the H&N Rabbit Magnum II certainly aren't copies but pretty much the closest you'll find to replace it. Due to the higher-precision manufacture, they give better accuracy but still deliver a mighty clout. Many report good results up to 22ft lb in .177 and 40ft lb in the larger calibre – this as usual depends on the rifle. If you feel these will suit your barrel, these niche market 'bunny bullets' should certainly be given a go. As with selection of ammo for any power of air rifle, try the ones available and find the one best suited to your rifle and power setting.

In general I still feel most UK shooters are content to run their air rifles at 18 – 22ft lb in .177, 22 – 26ft lb in .20 and 30 – 60ft lb in .22 calibre – any higher power above this and it really is time to look to the .25 calibre rifle.

So, before the 'big boys' take over I stress the point that these observations aren't grabbed from thin air but born from my own personal

experience and many others agree with them. In fact, some shooters think an FAC air rifle the choice of the lazy shooter. Granted, if you're set on .22 calibre and you are never fully confident in your rangefinding, keep the distances reasonable and you really can enjoy the benefits a flatter trajectory hi-power air rifle affords. Also, the need to allow or take into consideration the effect wind has on the pellet is less. Obviously, this only applies to sensible ranges, and you can be more confident in the flatter trajectory for taking awkward upward angle shots as well; the reason that when roost shooting, I sometimes prefer to use an FAC air rifle. Also, I'm sure you can see the benefits of using a hi-power air rifle for both lamping and when using NV riflescopes.

Remember in Chapter 4 on Ammo, we looked at checking pellets? Well, while it's important to use quality undamaged pellets in 12ft lb, when using a FAC air rifle the slightest deformity or damage will render it very unpredictable and should be discounted. Whilst pellet choice is always important, correct pellet choice and scrutiny of the quality is vital for using in a hi-power air rifle.

Interestingly, and I still agree with the many other hunters, using a .177 calibre rifle running at 18-24ft lb recommend the Bisley Magnum pellet, and at 10.5gr it does seem to be the optimum choice for the small calibre FAC fan. As proof of its popularity, it's available in a few slightly different head sizes in both the popular calibres. Without wanting to seem like I'm contradicting myself, you really can tailor those heavyweights to suit your particular gun, and as I'm sure you're now aware, taking the trouble to find exactly the right one that suits your rifle barrel will certainly show itself in the accuracy you're able to achieve.

However, as we are soon to look at the much talked of bigger calibres, I feel that nicely brings me to the next factor to address in relation to FAC rifles, and calibre size is the misconception of power or 'hitting force' at the target being the main requisite for effective hunting. Once again, go back to the Ammo Chapter and you'll see this particular mistaken belief is more than dismissed for a pellet fired from a 12ft lb air rifle and so it equally applies for FAC rifles. It's accurate shooting that puts the pellet into the kill-zone not power, although power does offer better accuracy potential under certain conditions. Consider this fact: A .177 calibre 22-24ft lb air rifle still delivers approximately 12ft lb of

muzzle energy at the target and at 60yds, that's some clout! So with calibre size and weight in relation to power out of the equation, what other reason is there specifically to use an FAC-powered air rifle?

Some areas of land might be certified fit for an FAC air rifle but not necessarily suitable for rimfire. As the law is continually becoming more stringent there are no grey areas pertaining to responsibility of gun ownership. In other words, land is either passed for rimfire or it isn't. If it isn't, then more likely it will pass for FAC air rifle and in these cases, if you feel the need of the extra oomph, the FAC air rifle is the tool for the job. I'm sure you can now realise that it's all too easy once you get your ticket to get carried away and go for the most powerful rifle you can find. You need to weigh up your needs and abilities, the ranges at which you're likely to encounter quarry, and the reason you needed or wanted the extra power in the first place; and to return to the subject of kill-zones, more areas of vulnerability on quarry targeted are now open.

To steal a rifleman's phrase of 'putting one in the boiler room', which is possible with an FAC air rifle, as it means the centre target mass, that will usually be the heart/lung area. Heart/lung shots not dared possible shooting at 12ft lb, are acceptable with a hi-power rifle. So are the side-on, smash-through hits on the chest area of corvids and pigeon.

For the latter, though, you do risk bruising at least one side of the breast meat, but if this is the only way to tackle them, if you own an FAC the tool is at your disposal. Consider this example of the opportunities that having a FAC air rifle can open up for you. If shooting from a reasonable-sized hide, I often take in both a standard 12ft lb air rifle and a hi-power rifle. For quarry that presents at medium range, the FAC can often be too much gun for the job so the 12ft lb does the duty there. For wood pigeons or crows that sit further out or higher up at longer range in trees, the FAC rifle is the one to pick up for that shot. With my Theoben Rapid MkII allowing me to have 30ft lb at my disposal, pigeons in trees drop out like stones when hit in the alternative kill-zones that the hi-power air rifle can offer. Another bonus is, I don't need to worry about small leaves or twigs, as that heavy weight pellet will brush those aside and still crash with deadly duty into the carefully targeted and selected kill-zone. Another reason I'd pick up the FAC is for other legal avian

quarry species that roosts or generally sits higher than usual in trees, sometimes now even for brancher shooting.

Super Hi-Power FAC

Though what follows are tales of air rifles with jaw-dropping raw power, I must say very hi-power air rifles are nothing new. Renowned airgun designer, John Bowkett, was making incredible weapons to special order for the USA way back in the early 90s with Stalker Air Rifles and his own bespoke designs as J. B Custom Air Rifles. Can you believe these included .45 and 50 calibre PCPs with power levels of 200 - 300ft lb?

Yes, the Americans like to go large, and in their homeland they've now launched a beast; the jaw-dropping monster very suitably named 'The Benjamin Rogue.' It's electronically managed by what the company (Crosman USA) term 'ePCP' and it shoots - wait for it - .357 (9mm) calibre bullets. They've made their own ammo weighing a whopping 127-gr, there's a .35 option from JSB, and the highly-respected bullet manufacturers Nosler specifically manufacture a 145-gr, polymer-tipped, .357 calibre air bullet for it!

It's only right to mention the Daystate Air Ranger 80 as this leans more towards what the UK has had in the past in .25 calibre, but with more accuracy. A firm favourite, particularly in the USA, I was fortunate enough to try one and it does have to be said, there's a real buzz when you trip the sears of this high-power behemoth.

There are so many other specific FAC air rifles that warrant a mention, but due to space constraints I must add here, the specialist shooting publications now fully cover all the latest and notable major air rifles irrespective of power level, such is their impact on the scene.

Even so, this chapter certainly wouldn't be complete without including the Daystate Wolverine .303. It's caused the biggest buzz in the industry I've known, especially here in the UK. As attractive as it is unique, with an automatic pressure switch that prevents the rifle from being fired when the pressure in the reservoir is too low, all the action is built from expensive and new types of materials needed to withstand the almighty power this unleashes. It also uses a blow-back system to cycle the 9-shot magazine.

As an example of the reason this rifle is of use in the UK, who better than Jerry Moss, full-time ranger with the Red Squirrel Conservation Society at the Whinfell Forest Red Squirrel Refuge to inform us? He uses the rifle on a daily basis in his work



FAC air rifles often allow a flatter trajectory to the target; just one reason many prefer to use them for shooting at awkward upward angles

Jerry Moss: Ranger and a Trustee for the Penrith and District Red Squirrel Group.



Jerry Moss in action with the Daystate Wolverine .303 in the Whinfell forest

‘Amongst other duties, I monitor the red squirrel population in a 5km buffer zone of Whinfell Forest, as well as the forest itself. A major concern is the control of grey squirrels and for this, like the other rangers, we use various methods - often these include shooting or trapping.



The Daystate Wolverine .303 running at over 100ft lbs is a very specialised but highly capable pest control tool

The Daystate Wolverine 303 was launched at Greystoke Castle in July 2012. Afterwards Tony Belas, of Daystate, asked me to use one, as he wanted to see how it got on under real-time field test situations. The next day, after putting three tins of the huge 50.15gr Daystate Rangemaster Emperor through it, I discovered it gave 18-20 useable shots which is easily enough for most days on my rounds.

I decided on a maximum range of 50yds as most of my work is within woodlands. 30, 40, 50 and 65-yd targets were set out and I was achieving groups over these ranges with a 50-yd set zero within one-inch. Since then, I've shot numerous grey squirrels from 20yd out to 60yd, so many might immediately think, 'Why use the Wolverine running at 100ft lb, and not a 30 or 40ft lb FAC air rifle?' Well, the grey squirrel is a tough little critter and it's imperative I get the all-important clean dispatch, so I'm working at greater distances a lot of the time and every shot has to account for one fewer non-native pest species.



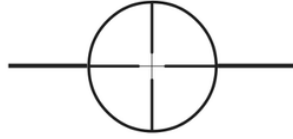
Who would have thought that FAC hi-powerewd air rifles would be used in the protection of some of the UK's native species (Sarah McNeil photographer)

Standard FAC air rifles are very useful, but I'm so impressed with the rifle that it is now my weapon of choice in the situations I know it will serve me best. Advantages are, it's very hard hitting with the large pellet over greater distances, so it's very accurate and the pellet has a very quick fall-out so elevated shots at grey squirrels are a 'go', as long as the background and distances are suitable.'

J.M 2012

There is so much more that can be said on this subject but I have to end the chapter at some point. Jerry has more than ably conveyed the pertinent fact that specialist pest control situations do, at times, require specialist FAC air rifles. Where this leaves the FAC airgun hunter is simple. Once armed with the facts about these rifles, make a very considered judgement of whether you really need such a specialised rifle, or not. Also, I feel his comments have helped put a lot of what was written by me, into a very apt context.

So at last - there you have it. The FAC air rifle may well be a specialised tool, and have specialised uses, but should the situation be encountered, the rifle fulfils its role admirably.



15

General and Routine Maintenance

Many moons ago when I got my first air rifle, kids such as myself borrowed a tin of WD40 and 3-in-1 oil from our dad, and some furniture polish from our ma, and that was how we looked after our slug guns. Of course, it isn't the best way to do it but strangely enough, as basic and in many ways as unsubtle as it was, it was at least an attempt at keeping the rifle clean and corrosion-free. Amazingly, it didn't do half bad a job either. WD40 isn't the best but is good at preventing rust, and while furniture polish did clean the stock it left it 'slippy', but at least it did smell nice!

Had we known then, what we know now, that those lubes and oils can actually have an adverse effect on the finish of chemically-blackened parts, I'm sure we wouldn't have been so enthusiastic about their use.

Obviously, as we grew older and learned by way of magazines and books, we took more time and effort in looking after our guns. Even now though, you'll see it written – 'wipe over with an oily rag, put it away in a gun case and place in a safe, dry place'. To a certain extent, I feel that's better than nothing but it's advice that's of little more use than what we did way back when we first shot springers on the cut for rats.

Most shooters have their own views on what are the requisites for gun maintenance – some, most or all being done on a regular basis. For reasons of thoroughness, in this chapter I'll not only give my recommendations but I've managed to persuade a well-respected gunsmith to contribute some sound advice, that being Tony Wall who you heard mention of, way back at the start of this book. He's somebody I not only rate highly for his knowledge on the subject and hunting prowess in

the field, but also someone I owe a great debt of gratitude to for advice and other such help in this sport of ours.

Firstly though, my thoughts on gun maintenance and the very basic dos and don'ts of DIY 'gunsmithery.'

The Basics

Firstly, a word or two of caution: If you buy your air rifle new, consult the manual and associated literature; the rifle, more likely than not, will have a recommended 'lube' list with guidelines.

Follow these to the letter as if you don't and the rifle needs major repair, it will need to go back under warranty. If the manufacturer sees you've ignored the guidelines and used inappropriate lubes or have just tinkered, then the warranty will be void and you'll probably end up having to fork out much more than expected for what could be a very simple fault, even one you've maybe unwittingly had a hand in causing.

A basic set of tools is needed, and a more substantial set being all the better. At least you should have a reasonable-sized tool box containing various sizes of slot- and cross-headed screwdrivers, a selection of standard-size Allen keys, both imperial and metric, long-nosed pliers, scissors (for cutting cleaning patches and swages), small mole grips, small adjustable spanner, multi-tool, a ratchet multi-bit head set, barrel pull-through, barrel cleaning rods with brushes and jags, scope lens cloth, and of course, the correct oils and lubes are definitely needed. In fact, a good selection of the lubes in suitable dispensers will enable you to have a full service and maintenance kit for the air rifle, you might say.



Portable workstations make rifle maintenance easy and allow the storage of essential tools, lubes and oils

There's a wide selection of lubes and oils on the market but you really do need to know which to use for what part of the rifle, or else you can end up doing more harm than good. Incidentally, whilst a simple plastic tool box for keeping everything together will suffice, one of the portable rifle maintenance centres incorporating a cradle rest to secure the gun while you're working, including storage areas on a box or tray is a much better option. These workstations don't cost the earth and make working on your rifle much easier, and they can even be used for setting up the scope and zeroing. I use one manufactured by MTM with an accompanying shooters' accessory box. This allows me to store everything in the same place. Small items that are needed frequently store at the top section and larger cans of oils and tools in the accessory box. Invaluable if you take your sport seriously and care about the rifle you shoot.

Now a look at what lubes your maintenance box should ideally contain and where the various types can be used.

As we now know, it's definitely not wise to spray the whole rifle liberally with any aerosol lubricant or cleaning spray, as we did in the past. In fact, when applying anything (and that means anything), spray it onto a clean cloth and then apply to the rifle. So with that in mind, here's what you should have at the ready.

A silicone cloth for wiping down metalwork and the stock: Have one for metalwork and a lint-free cloth will suffice for the stock wood. Incidentally, always carry a cloth in the field and should blood drip or splash onto the metalwork, wipe it off immediately, and then clean properly and oil when at home. Nothing attacks the metalwork as viciously as blood, moisture or rust.

This wiping maintenance routine should be the first and last thing you do to the rifle, before use and certainly after use in the field. Talking of which, if the rifle is wet after a hunting trip, initially wipe over with disposable absorbent kitchen towel, and then leave it to dry fully and naturally at room temperature in an airy place before lubing and storing away.

If your rifle has a non-lacquered stock, be it walnut or other such wood, then make sure you have the appropriate stock wood oil and use it regularly to keep the stock wood replenished with the natural oils that the weather and your hands will remove.

Now, as I've already mentioned silicone, I must follow that immediately with the warning that it's fine for protection and the initial wipe over, but any oil or grease that uses silicone as a base substance should never be applied to a load-bearing surface such as breech, jaws or pivot pins. You'll find it's available as a silicone spray and silicone grease, but of all the lubes this is probably the most specialised. It was wrongly thought by some in the past, to be a wonder-lube for lubricating any metal surface – it's not! It has no uses except to protect external metalwork from moisture, including the acid in perspiration from your hands and fingers, so therefore helps stop the onset of rust. That is its primary job; to dispel moisture, and it does it well. As for silicone grease, this is even more specialised and should only be used for lubricating plastic surfaces.

Grease that can be associated with silicone is Molykote 33. This is silicone with lithium base and its function when used sparingly and properly is to lubricate O-ring seals such as the breech seal, buddy bottle O-ring seal, and on the seals of pellet probes, but words of caution – use very sparingly and wipe off any excess.

Grease that is the most useful is Molygrease. This is usually a thick, dark grey paste and is the one to apply to the large, load-bearing surfaces such as breech jaws and springs. For the pivot pins and linkages, it's best to use a lighter lube such as Molyoil. If you are wondering, 'moly' is the airgun's friend, as when you see the name it's the shortened reference term for the substance known as molybdenum disulphide.

Now you may think it strange that I leave it until last to mention one of the most useful and usable, but I once again want to stress that all lubes, even and including molybdenum should always be used sparingly. Another magic lube is good-quality, light machine oil. Remember that good old 3-in-One oil we've used for years? Well, forget it because there are special light gun oils that are more suited. Light oil in itself does no damage wherever it is applied, but always remember that nothing, repeat nothing, should be put either in front of the piston, and in a PCP never put anything in the air reservoir. Do not put grease on or near the inlet valve, either. Keep it clean but do not have anything near it that could have cause to be transferred into the reservoir on filling.

Talking of which, I'm sure you'll have noticed most of the maintenance advice pertains to spring-powered air rifles, rather than PCPs. As you'll read further, even the experienced advise that you have a PCP serviced by an expert. Of course, barrel-cleaning can be done, as can exterior work, but for the valving and other such mechanics of the PCP – leave it to the experts. Incidentally, for more in-depth info there are books on the subject but we're fortunate here to get a few tricks of the trade from a professional. I now hand the platform over or maybe that should be the 'oily rag' to Tony Wall, of Sandwell Field Sports.

From the Man who Can

Tony Wall – Gunsmith: After many years in the trade I know all too well how the elements can soon affect a lovely new rifle. Even as soon as it

leaves the shop, and after you've put your hands on the metalwork, it's already under attack from corrosive elements. Even the moisture from your touch will start to eat away at that lovely lustre of the metalwork, and after saving hard-earned cash, and after many weeks of deliberation over which to choose, it's only fitting you look after what is, in effect, a precision instrument.

So, like many others who enter the sport, you've been keenly shooting it, on and off for about three months with no problems and everything is rosy, or is it? Now you've done your bit to keep the nasty rust monster at bay by wiping the gun over with an oily rag as Mr Wadeson so succinctly puts it, and putting it back in its bag to protect it from bumps and scratches that will inevitably occur over its coming lifetime, but have you thought with all that vibration and recoil (by-products of the internal operation of a spring-powered or gas-ram air rifle) that maybe the stock screws have come a little loose? Now then, that may explain the inaccuracy of the gun all of a sudden!

How do we cure the problem of loose screws? Simple; degrease the threads with a quality degreasing agent or methylated spirits, and apply a very weak thread lock. If no thread lock can be found then a small dab of nail varnish will suffice, failing that because not every bloke has nail varnish in his gun maintenance kit, (I'd be worried if he had!), a bit of cotton thread wrapped around the screw threads will do the job equally as well. Loose screws not only cause inaccuracy in a gun, but in the case of a recoiling gun can potentially cause split woodwork as well.

While we're checking over the gun for loose screws, it's always worth checking the tightness of the scope-mounting screws as well, although on a recoilless PCP air rifle, if you've mounted the scope correctly, this is rarely a problem. Just a gentle tweak is all that's needed; don't go like a bull at a gate and tighten it so that you need a length of scaffold pole for leverage to undo it again, but just enough to hold the clamps securely in the dovetails without them being damaged. If you do re-tighten, always re-check zero.

If you own a break-barrel recoiling gun then pay close attention to the area of the breech jaws as all sorts of problems can occur if left to their own devices. First of all, check for the biggest killers of all airguns – dirt and grit.

Grit has the annoying habit of actually shaving metal away when compressed and making what was once a wonderfully smooth gun into an old clapped-out banger. So what do we do about it when we see a fair amount of dirt and the like, accumulated in the said area? Well, I'm afraid there's no way around it really, apart from a full strip-down, but if there is only a small amount to be seen then there is an easier method to apply. If you know someone with a compressor then give it a quick low-pressure blast around the area, pointing away from your person. (Note: You should only attempt this method while wearing appropriate safety goggles. Also, do this under the guidance of someone who has intimate knowledge of how pressure equipment works.)

You'll now be feeling pleased with that job, but when you jetted away the unwanted grit and dirt, unfortunately, you also unintentionally disposed of the oil and grease that the manufacturer put there to lube the area. You guessed it, now we have to put it back again. So, what lube is best? Well, I wish I had a penny for how many times I've been asked that question! There are many lubes out there and I could write reams on that subject alone, but I'll condense it to specify a few lubes that I use and recommend.

Around the breech area, if stripped down, I'll use a thick, synthetic molybdenum paste as made by a company called Lurbo Teknik. If you don't feel competent enough to strip your gun down then pop along to a good motor accessory shop and ask for a can of non-silicone motorbike chain-spray oil. This can be termed oil or grease as it comes in aerosol form and leaves the can as a liquid spray to dry as a viscous greasing and protecting agent. Use it very sparingly on the inside of the breech jaws, pivot pins, at the barrel detent and just about any area where there is a high load factor. Also check your breech seal for signs of wear, if there is the slightest of nicks in it then replace it as it will only get worse with use and as Sod's law dictates, will fail you when you're on that long weekend hunting trip, or squeezing the trigger on what could have been a shot of a lifetime. Breech jaws and shims need checking for wear as does the breech axis pin for working loose. That's the big screw bolt that holds the barrel onto the breech jaws.



The spring and piston powerplant will periodically need care and attention, eventually even replacing

If you feel confident enough to take the action out of the stock then do so, and wipe away all the debris that has accumulated underneath the action and in the recess of the stock. Then, using the chain-spray oil, spray a little onto the coils and spring guide if your gun sounds particularly 'boingy', but for more dedicated spring-dampening, change lubes and use a cotton bud to smear some thick Moly grease into the cocking slot and between the coils. When all is complete and nicely oiled, be it pneumatic or a springer, before putting the action back into the stock, sparingly spray the motorcycle chain oil onto the underside of the action to protect against the elements.

Probably the most important part of an air rifle is the trigger unit, not only has this component the laborious task of releasing the piston or valve spring hammer, time and time again, but it has to do it with the consistency of a Swiss clock over a good many years of use. If any foreign object or debris finds its way into a trigger unit, a multitude of

problems can arise. This is an area I personally pay great attention to, cleaning it meticulously when I service or tune a gun. A word of caution though; if you're stripping down to clean a trigger unit you really need to know what you're doing. One small misalignment of the components upon reassembly and you've got a dangerous gun on your hands. The golden rule is, 'if you don't have a mechanical mind, then leave well alone'. Take it to a reputable gunsmith who for a very modest fee will only be too glad to do the job for you. If a trigger is to be lubed (which is very rarely needed), then use a very small amount of the lightest oil you can find, but I must stress the importance of careless hands and fiddly fingers in relation to trigger units. Over the years, I've had cause to put right many DIY-bodged-up and tampered with trigger mechanisms, the air rifles' owners thinking they were doing the right thing and adjusting the trigger to suit them as well as cleaning it. In fact, I'd always say for safety's sake and the peace of mind it will give – do leave this area to the experts.

So, although I've warned against tampering with triggers, I'm presuming you've followed my advice and taken the action out of the stock and carried out all the other routine lubing. If so, when you put the stock back onto the action again, you will see a slight gap all around where the action seats into the woodwork.

This is an area where rain can and does run to the underside of the metalwork, and in extreme cases can cause the woodwork to swell and split, so smear a good dollop of petroleum jelly into the gap all around and wipe away any excess with an oily rag. Oops, nicked that one from Pete. Anyway, pay particular attention to the butt pad where it joins the woodwork, again smearing petroleum jelly into any gaps where rain can get in, and in time do its worst.

If any dents or bruises have occurred to the stock, any competent gunsmith can sometimes repair them if it is an oiled finish, but on a lacquered one I'm afraid then you'll just have to live with them. For cosmetic repair of an unlacquered stock, I use an electric kettle with a narrow spout that emits a small jet of steam, which I hold the dent over until it has raised then I 'cut it' back with very fine wire wool and oil it again so that it looks like new. On some lacquered stocks, which have

scratches, I've successfully used boot polish to hide the unsightly marks, but this is more of a temporary measure rather than a long-term one.

We've now covered the protection of the external metalwork and woodwork, but what about the insides of the gun? Well, here comes the controversial part; do we clean the barrel or not? There are many trains of thought on this matter and I'm afraid I live in the camp of clean it, be it with a phosphor bronze brush and rod, or a pull-through. A barrel can never give its full potential if it is dirty and I always clean mine every 200-250 shots, whatever the gun, while FT shooters on average swear by cleaning theirs every 80-100 shots. Then again – some just swear!

Although modern pellets are a lot better made than they were in Grandpa's day, and even though they may look clean in a tin, believe me they are, in fact, very dirty with minute lumps of swarf and oils on them. OK, we can wash and lube them in many of the pellet lubes that have become fashionable these days, but the truth is, lead is a very dirty material (you only have to look at your loading fingers at the end of a long practice session to see that) and coupled with the speed of the pellet travelling up a choked bore you can see why a barrel becomes dirty quite quickly. So how do we clean a barrel, then? I favour two methods, the first is to scrub the bore with a good-quality phosphor bronze brush and rod to loosen up any lead fragments – I promise you it won't damage anything. Then I pull the bore through with a lint cloth with a few drops of airgun barrel cleaning fluid on it (NOTE: Don't use the solvents intended for the cleaning of fullbore rifles; these solvents are very corrosive and if allowed to trickle inside a pneumatic air rifle valve or come into contact with any synthetic material, over a period of time it will dissolve them. Only use cleaners intended for airgun barrels; if in doubt contact your local gunsmith or manufacturer of the gun.)

I then proceed to use the barrel pull-through, replacing the patches until they appear clean. When you are satisfied it's clean, fire a few shots through the gun to settle the barrel down again.

If you have a silencer fitted – which most hunters should have – then it can be very frustrating trying to get a pull-through wire into the front of a barrel through a long silencer. If it's a screw-on silencer, no problem, just unscrew to remove, clean the barrel, then after refitting the silencer, check the zero. If it's a push-fit silencer held in place with a grub screw,

it can be time-consuming and quite a struggle to remove, and nigh-on impossible if it has been bonded in place! So how do we overcome this problem? Well, a simple little trick I use is to insert an ordinary plastic drinking straw into the silencer until you feel it bottom out (come up against resistance), as it touches the muzzle or crown of the barrel itself. Then place the pull-through wire into the protruding straw's hole and feed it in until it shows at the breech loading area. Then fit with a clean patch and pull through as usual. On exiting the barrel, the patch catches on the drinking straw and, hey presto - all come out of the silencer together.

Talking of silencers, unlike on powder-burning guns (live-round bullet guns), airgun silencers don't really need cleaning inside as there's no real residue discharged by the airgun to get rid of, so on this matter I'd say leave well alone. If it ain't broke, don't fix it, and as the internal baffles are precisely set for the airgun silencer to work at its best, there's no point risking upsetting this harmony.



Tony's straw and pull thru' trick for cleaning a barrel with silencer fitted

Pellets

As for pellet care – do we lube the pellets or not? If you've washed them then I say a resounding, yes! The reason being that after washing, pellets have nothing on them to protect them from oxidisation and so if left to the elements they turn white and 'scabby' and don't shoot at all well. If you shoot unwashed pellets in a pneumatic then I would also say again, lube them because quality lubes cut down the need to clean the barrel as often, while I find spring guns don't really like a lubed pellet at all. I have a theory about that because when a springer shoots, it disperses a tiny amount of its own lube up the barrel, therefore adding any more oil to the equation seems to upset the equilibrium, causing the odd flier to occur and so spoiling an otherwise good group. To help prevent this, for my springers, I use a wax-based lube very, very sparingly on the washed pellets so as not to cause any dieseling.

As many hunters like Mr Wadeson now prefer to use a multi-shot PCP air rifle, a word or two on the maintenance and care of pellet magazines. These little ingenious but relatively simple units can be an area where all sorts of muck and grime can accumulate so a good cleaning session wouldn't go amiss here as well. Cleaning some magazines such as the removable 8-shot drum ones can be done with relative ease, whilst others such as those with an outer casing and inner drum 'sprung or free moving' have to be stripped down or disassembled. You'll either see through the perspex cover if dirt is accumulating, or for closed-face types you'll actually feel the grit as you rotate the inner drum of the magazine while filling with pellets. This isn't an uncommon occurrence; especially if you've dropped your magazine in the mud a few times, or keep them in dirty jacket pockets, or even pay scant attention to the ammo you load into them.

I clean these types of magazines with a product called 'Gunk-Out' made by Kleanbore. This is a quick evaporating degreaser and cleaner. If you can't get this excellent product, then once again, pop down to the local motorist spares shop and get a good-quality brake and clutch cleaning agent. Spray the magazine liberally inside to get rid of all the nasty debris and place on one side for this inner pellet carrier to dry

naturally. Then lube lightly with a good pellet lube or Teflon-based lube, and never use a gooey, thick grease otherwise you'll find after assembly that the internal carrier soon gums up, catching more dirt than it did before. (Note: The above is a base guideline and will suit most removable rotary feed magazines currently in use. However, check with the rifle manufacturer for advice on lubing their particular magazine, not all magazines work well with lubricant.)

As for specific maintenance of a PCP, I'd recommend that you always take it to a reputable gunsmith. Most work done is commonsense and not difficult, but it can be very dangerous for 'Fred In The Shed' to go willy nilly at it.

Before I hand back to Pete, I'd like to stress the point that as responsible airgun hunters it's our duty to ensure that the air rifle in our possession is running within the UK legal limit currently set at 12ft lb. As I do much custom-tune work on rifles, the most common request is to make the rifle as powerful as possible up to the limit. I don't do this for a specific reason; if an air rifle is set dead-on 12ft lb with one pellet brand, use a different, say lighter pellet and then the rifle will stray over the limit – rendering it, in effect, a firearm and if you haven't got an FAC with this on your ticket, you're breaking the law. I always recommend and set the rifles up at approximately 11.4-11.6ft lb depending on the rifle. Small, basic chronographs aren't costly, and if you can't get to a specialist dealer who has one, although in my mind all gunshops should have one, it's no great task to keep a check of the rifle power output at home. This helps you to ensure that you're legal, and importantly for your hunting, that the rifle isn't dropping in power for any reason.



All air rifles are meticulously checked over a computer chronograph before leaving the gun manufacturer – it's every shooter's responsibility to ensure the rifle's power level stays within the legal limit

I'm sure Pete's pointed this out, but I still feel it needs clarifying from a gunsmith's point of view. Everybody is an ambassador for the sport and we want all who take part to do so safely and within the law.

So that's about it – everything I've outlined is within the capabilities of the most DIY-phobic, but there are times when the rifle, be it spring-powered, gas-ram or PCP will inevitably have to go to a reputable gunsmith for repair or service. Beware; not all gunsmiths have the knowledge of the intricacies of modern air rifles. They may be expert at repairing shotguns and superb at servicing fullbore rifles, but airguns are a totally different matter. If you are unsure to whom you should entrust your prized possession, look at the adverts in one of the many airgun magazines and you'll find certain companies who advertise as experts in the field of airguns. They'll know how to breathe new life into your pride and joy. Failing that, you can in most cases send it back to the manufacturer, after all they built the darned thing in the first place, didn't they?

Tony Wall.

Gun Storage

We've had some very wise words from Tony on gun maintenance so time now to look at a subject that is equally important – the safe storage of the air rifle.

Like me, Tony and many others of my acquaintance believe that storing your gun should be as important as cleaning it. What's the use of spending all that time meticulously oiling and cleaning your pride and joy only to put it in your bag and stand it in the corner of a damp room or garage?

Do this, and leave it in there for any amount of time, and you'll come back to a brown and black-coloured gun that resembles a patchwork quilt with moss growing on it! OK, maybe I'm over-dramatising that a little, but how do we stop the dreaded rust from attacking the gunmetal in the beginning? Well, this is where we come back to the oily rag. Yes, wiping the metalwork over is a help, but there are now numerous lubes on the market these days and they all claim wonders and miracles for keeping a gun rust-free, but depending on how the rifle is stored, oil often isn't by itself good enough to protect a rifle. The reason being, oil is easily absorbed into some gun bag linings and so the rifle is soon rendered dry. If the rifle is not going to be used for a while then more protection is needed. A popular one with collectors is to smear a thin lining of grease or petroleum jelly onto the metalwork. Also, guns that are not being used very often should preferably be stored lying horizontally. This mainly applies to springers as internal oils will only run one way – and that's downwards!

Now, as for storing rifles that are used with some regularity, without doubt the best place to store a gun is in a gun cabinet or enclosed gun rack. Not only does this protect the rifle from the bumps and bruises that can occur in a soft gun bag, but it also allows it to 'breathe' and equally importantly – it's away from prying eyes. If young children are in the house then it certainly should be in more substantial storage than just being put away in a bag at the back of a wardrobe. If you can afford it then go for a lockable gun cabinet for scope with rifles (these are deeper

to accept the scope), not only can you store your gun in it but you can put small personal valuables in there as well.

You will never buy a sounder investment as a shooter, but first, I will detail the important legal requirements for airgun storage in the UK and my own advice on what is your required duty. Of equal importance is the fact that the laws on gun storage are now being fully enforced by the authorities. The Home Office in the UK has issued a leaflet on storage of a 12ft lb air rifle. The magazines and our organisations are also keeping us fully briefed on what the police don't want to see when they may have to visit. Recommendations are quite strict, but with children and underage teenagers potentially getting a hold of a relative's air rifle, we need to be careful. Boys will be boys, as they say.



Just two examples of what the HO accept to be used as reasonable security precautions as long as the air rifle is secured to a permanent fixture in the house and is also kept out of plain view

However, no matter what, our air rifle is our responsibility so in the eyes of the law we should lock it (mechanically) away. Not necessarily in

a gun cabinet as there are many padlocks with cables for attaching the rifle to a permanent fixture in the home, or for locking the access to them. These range from the most basic trigger locks, cable and lock types which are now supplied with all new air rifles sold, courtesy of the airgun manufacturers. You also need to keep ammo in a separate safe area. All this is not a change in the law, but more a case of strictly enforcing the law as it stood.

Personally, I feel the Home Office guidelines as fully detailed (as they currently stand at time of updating this book) are sensible, and what every responsible airgun user should have been adhering to in the first place.

Lock Down

By law you don't need a metal gun cabinet to store a 12ft lb air rifle, but the Home Office recommends the following sensible precautions:

- Store your airgun out of sight and separately from any pellets.
- Use a robust, lockable cupboard and keep the keys separate and secure.
- Always store your airgun inside a house rather than any type of outbuilding, such as a garden shed.
- Never store the airgun cocked and/or loaded.
- When using your airgun, keep it under close supervision and never leave it unattended.

The full Home Office guidelines are in a free HO leaflet, available from your local police station or the Home Office website. The term is, 'take reasonable precautions'. In other words, don't leave your airgun uncovered, lying around in plain view or where little Johnnie can play with it when you're out, or a burglar can easily find it and make off with it. Everybody's situation will be different, which is a major reason why there are various different options to suit your particular requirements. Incidentally, another factor to take into consideration is that ammo (pellets) should be stored separately from the airgun and preferable locked away. A little lock safe, strongbox or lockable filing cabinet will suffice for their storage.

Trigger Locks

Standard types of what are known as ‘trigger locks’ are the minimum level of security you should use as they render the rifle inoperable. Generally made of toughened steel, they come in two parts, use rubber panels to prevent scratching the rifle and fit easily through the trigger guard, and here they mate-up by a securing and ratchet spindle to be locked in place. They can be either key-lockable or of a combination lock design. Use these if you do have a room or place in the house that is inaccessible to anybody but you. Always err on the side of caution though, and if possible have a lock fitted to the access points to that room or space. Trigger locks are best used in conjunction with some form of cable lock, as the airgun is always safer when attached to a permanent fixture in the home.

Many companies supply high-quality trigger and cable locks. Specialist Firearm Security Company – F.S.C. – I feel are amongst the best on the market and supply HO-approved security of all types to suit virtually all requirements.

Gun Cabinets

The optimum way of safe storage is to go for a quality gun cabinet; rifle plus scope designated. They come in various sizes, so you choose in accordance with how many guns you want it to be able to store. However, you could well eventually want an FAC air rifle and then go on to live round firearms so you definitely will need one. Try to be sensible and consider what you may add at a later date to your armoury of sporting guns, as it’s best to buy one that’ll hold more than you have at the time of purchase. I’m not urging you to buy a bigger one than you need, but you’ll be surprised at how the bug can bite, and the bonus is, if you don’t add that many, there’s still more room in the cabinet so you’re not running the risk of scratching rifles standing on each side as you take the one you want for a particular hunting session.



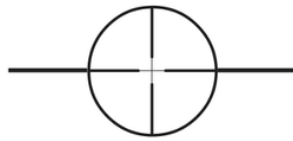
I have two storage areas; one is for the 12 ft lb air rifles and is in actuality a purpose-built, floor to ceiling, lockable cupboard that outwardly is designed to look like a built-in wardrobe. Inside is a custom-built gun rack that holds up to 12 rifles and has storage space and drawer units for various airgun associated accessories, except ammo, as these are kept under lock and key out of view elsewhere in the house.

Here, the rifles are safe and secure, ready rigged with scopes, zeroed and ready to be picked up and slipped into the appropriate gun bag for use when needed. My other storage facilities are locking, police-approved gun cabinets. These house my FAC air rifles nestling alongside live-round firearms.

Before leaving the whole subject of gun maintenance, I'll end on this thought. While we think nothing of having our cars regularly serviced, why is it so different to put our springers, gassers or PCPs in for servicing by trained personnel? Personally, I say a yearly tune-up or

service should be considered for your most used hunting rifle. At the very least, now armed with the information in this chapter, you have no excuse for giving it the close scrutiny every four to six months or so, but certainly, in the case of a PCP, read the manual to see what the manufacturer recommends. Many have their own in-house service departments and do, in fact, recommend either a yearly or 18-month service. Don't think they're just after more money – they're not, as no service is over-expensive and surely it's worth the cost to have the rifle back up 'n' running at peak performance.

As they say – Stay Clean and Keep Safe!



16

The Airgun Hunter's Larder

Preparation of Game

Although hunting with an air rifle is done primarily for pest control of vermin, there are obvious benefits besides it being an absorbing, challenging and enjoyable sport. A major plus being the fact that certain quarry species is very tasty to eat.

I've now come to a point in my shooting career when I feel that if edible quarry isn't taken for the table, it's a waste of good food. Even if it's not to your taste, or maybe you've no room left in the freezer, then you likely won't need to look far to find somebody who will welcome the nutritious meat on offer. If you really get into cooking your own game, then it's wise to invest in a small fridge freezer; a large chest freezer stored in the garage being even better. That way it stops the arguments with the missus that you've taken up valuable freezer space, and you can store a lot more game at any given time in various forms of dress. By that, I mean there are times you might only gut a rabbit but want to freeze it, and leaving the fur coat on means the rabbit meat is protected from freezer burn and tastes just as fresh once you defrost it to skin it and prepare for cooking. Also, if you really take to the technique of baiting-down crows and magpies, save the rabbit heads and the carcass with guts. Freeze in strong freezer bags to use as bait at a later date. Corvids aren't fussy and off-cuts and dissected heads work just as well as a whole rabbit at bringing them in - and in the long run who wants to waste too many good rabbits?

Now, unfortunately, in this age of processed, pre-packaged, ready-prepared food there are many who wouldn't know 'one end of rappid from 't'uther', as they say in old Lancashire. If I have the time, which I

rarely seem to have, I gladly prepare fresh game for the pot for friends, and I feel all who can prepare for the table should show those willing to learn how. If not, then that's yet another traditional country way of life lost.

Of course, it can be messy because fresh game preparation requires gutting, paunching and jointing. The cutting of flesh and cleaning out of a carcass is unpleasant to some, but many hunters will find some dissection educational. Just check out the crop of a woodpigeon and discover what it had been feeding on. It'll indicate where to look for more at that time. Also, I'm of the opinion depending on foodstuff, especially as I've noticed the difference in woodie by the season, that these different foodstuffs can slightly affect the flavour.

When gutting a rabbit as a hunter, check out where those vital organs in the body are. Yes, they are small and as I've mentioned in the section devoted to the rabbit in Quarry Files, the heart and lungs are very high up in the chest. As you slip the sharp blade of the knife up, notice how easily that rabbit comes 'unzipped'. There's not much protection at the top end where the ribs are either. You're now discovering these critters' vulnerable areas for yourself and you might well be surprised at just where they actually are in relation to their outward profile; but enough about biology and animal skeletal make-up because of all meat available the game we shoot is amongst the most nutritious you can find, being low in both saturated fats and cholesterol. This is true, untainted, wild protein and all wild meat has an unrivalled quality as during that animal's existence it lived as nature intended, in most cases eating a natural diet. Not being fattened up and pumped full of growth hormones or fed high-boost animal feed. Yes, no dangerous chemical additives to worry about, no excessive salt or the dreaded E-numbers. Once prepared, you're left with good, flavoursome, wholesome fresh meat.



Game from the airgun hunter's larder is amongst the most nutritious you can find

Before leaving the subject of taking for the pot, although I rarely shoot jays, if I'm shooting where they are in large numbers I will take one if the shot presents itself. The reason being, I know of several people more than grateful of the feathers for fly tying, and that in turn will result in a friend catching a sea trout, and again the basis for a fresh, healthy meal.

The edible game we shoot is rabbit, woodpigeon, collared dove and squirrel; yes, even the grey, bushy-tailed ones cook up to make a tasty meal. Rook pie – sorry, not for me, so here follows how to prepare my favoured quarry for cooking with a recommended recipe or two thrown in for good measure. Game cookery books are widely available and you might be surprised how interested you become in the subject. Even to the extent that you obtain reference works to help you identify edible wild mushrooms and natural vegetables and herbs.

Also, you can easily adapt most recipes that use game to utilise the meat from the airgun-hunting larder. You can even use a few types of meat in the same dish to make stews, casseroles or pies – my 'Airgun Hunter's Game Pie' recipe at the end of this chapter being a prime example, and let's not forget the fact that any meat here can be used in a

curry, kebab and even cut in strips for a stir-fry. The adventurous amongst you can have a field day, but, whichever way you prefer to cook the meat, you'll first need a few essential tools to prepare it.

The knife is the most versatile tool in the hunter's accessory kit and shows itself to be very useful in game preparation. Most hunters should have at least one good-quality, compact, folding lock knife. You can skin and paunch and fully joint-up a rabbit with such a knife as long as the blade is strong and sharp. Nothing's more useless or potentially dangerous than a blunt knife, so always keep those knives sharp.

However, a few more specific utensils are required if you want to prepare the game more easily and efficiently. A small skinner, a sharp, fixed-blade preparing knife, a meat cleaver and/or a heavy, serrated-edge, boning knife is handy as are a strong pair of game shears. Chopping boards are a must, as is a sharpening tool for keeping a keen edge on the knives you use for preparation.

Now, to our staple quarry species and the candidate for many a culinary delight – the rabbit.

Rabbit – Preparation

While it's traditional to let some game hang for a time, there is no need to do this with the game that airgun hunters will bag; rabbits need only be allowed to cool fully before being prepared for the pot.

There are two ways to deal with the rabbit; paunch in the field or wait until you get home. Now, I'll usually take rabbits home whole, and gut the rabbit prior to skinning, but only after it's cooled for up to 24 hours. I prefer to do it this way as long as I've not got a lot to carry around before leaving the shoot. A word of caution though: Don't allow them to stay intact too long before gutting as the insides can start to go off and possibly taint the flavour of the meat. While on this subject, while it's not very appetising, they say you'll come to no harm eating a rabbit that has myxy. Personally, it doesn't appeal and a way to spot the disease if signs aren't too obvious externally are by white spots on the animal's liver and occasionally, you'll find them on the other internal organs. These can go to the dogs, ferrets or people who fly hawks – so even these needn't be wasted.

First job is to empty the animal's bladder. This is done by holding the rabbit with stomach facing away from you, the hind legs pointed towards the floor while running the thumbs down either side of the animal's lower abdomen towards the lower thigh joint. Do it this way to avoid getting an eye-full of rabbit pee when skinning!

Most shooters who regularly prepare their own rabbits for the table have a set way of doing it and though all are similar here's the way that suits me.



A jointed rabbit – ready for the pot!

Once I've purged the rabbit of its last 'widdle' (and of course gutted it), I'll then pinch the fur of the rabbit across the middle of the back with the thumb and forefinger of my left hand and using a sharp-pointed blade held in the right hand, I push this through the pinched fur to pierce between fur and rabbit body, taking care not to go into the animal's flesh. In effect, what you are doing is slitting the fur across the back to facilitate the skinning process. To make the next step even easier, using the same sharp blade and cutting away from you, cut the fur downwards towards

the animal's belly on one side, then turn the rabbit over and repeat the procedure. This now will have created a long slit right across the rabbit's coat.

At this stage, you can if you wish, as I often do, cut the head off at the base of the nape of the neck. It's now time to pull the fur off the rabbit. Take hold of one side of the open slit across the back in one hand, and the other side in the other hand. Then, pull apart in opposing directions whereupon the fur coat will quite literally, and relatively easily peel off the carcass. It's at the hind and front quarters that you'll need to manoeuvre the legs out of the rabbit's coat, and if you haven't first cut the legs off, once you do this you'll be left with a skinned rabbit still wearing furry little boots. I leave it until now to cut the feet off as this shows the natural point to cut, keeping as much meat as possible on the bone.

Jointing is done by cutting off both hind legs and thighs from the body and then removing the front forelegs and shoulders. The body can be left whole but most cut in two or into a section of three for ease of cooking. Also, at this stage you can now carefully pare and cut away the sinewy clear tissue (this is a layer of white sinew or clear skin) use a very sharp filleting knife or dedicated fixed-blade skinner.

After removing the tail, and all excess skin and any remnants of fur, the meat needs a thorough rinse, and you now have one rabbit, ready for the pot. Should you wish to freeze it at this point, dry it off with kitchen roll, then wrap in cling film or use freezer bags to prevent freezer burn on the exposed flesh, and always date the bags so you know which to use first.



Flash frying any meat sears in the taste

Some say the meat of young rabbits is very tender and succulent, but obviously there's little meat on a small rabbit. Only the hind legs are worth jointing and I'm not one for taking such young, unsporting game unless specifically working to a strict pest control directive. I am told though that glazed and dipped in flour and then pan-fried the legs are delicious! That's for you to find out if you happen to have call to deal with a very large rabbit cull operation.

Here's a couple of my favourite ways with rabbit, and although I might call them casseroles, soups or pies, the recipe differs for various tastes and all can be as guidelines. That includes how much you add in terms of seasonings such as garlic or black pepper. They are certainly adjustable to suit your own particular taste, including the amount of ingredients, but the recipes as stated are more than enough to serve two generous hunter-size portions.

Recommended Recipe – Rabbit Stew

Ingredients:

2 large onions, diced
2 tbsp olive oil
2 cloves of garlic, chopped
1 large rabbit – cut the meat off the bone into manageable but chunky pieces
3 large carrots, sliced
8oz mushrooms, sliced
2 vegetable stock cubes
Worcestershire sauce
Black pepper
Gravy granules, for thickening

How to Cook

Using a large stew pot, fry the onion in the oil until starting to soften, add garlic and further fry for no more than a few minutes. Then place vegetables and meat into the pot.

Mix the stock cubes in a pint of boiling water and pour over the contents. If you need more water to cover the ingredients, add now. If you like garlic – add another clove on top at this stage.

Add a dash of the Worcestershire sauce and sprinkling of black pepper.

Bring to the boil, place lid on stew pot and turn down to simmer stirring occasionally. Cooking time may vary but should be approximately 3 hours. Towards the end of the cooking time add gravy granules to thicken the dish and test meat to check if it is tender and fully cooked.

Once cooked – serve with mashed potato and winter vegetables such as broccoli, cauliflower and cabbage. Incidentally, if you fancy a rabbit and pigeon stew – you simply add some woodpigeon meat. Simple isn't it?

Recommended Recipe – Simple Rabbit Soup

Ingredients:

1 rabbit, jointed
1 potato, diced
1 tin of sliced carrots
2 tins of Heinz chicken and leek big soup
Dried mixed herbs
Black pepper

How to Cook

This is the easiest to prepare and one that's surprisingly tasty due to the tang of the leeks in the soup – not forgetting the mixed herbs.

Firstly, the rabbit should be pre-cooked by roasting or boiling and the meat allowed to cook until it falls easily off the bone. Strain off the liquid and juices from the cooked rabbit and put into a dish to cool. This can be frozen for use at a later date as stock in other dishes.

Now remove all bones from the cooked rabbit and chop meat into chunky pieces.

The potato should be boiled in a separate pan until just beginning to fall. Then drain off the water from the pan the potatoes were boiled in and add the tins of soup, drained tin of carrots and the rabbit cubes. Add a liberal sprinkling of mixed herbs and black pepper and simmer for 4-5 minutes stirring regularly.

Serve with crusty bread of choice.

Recommended Recipe – Rabbit and Onions

Ingredients:

6 rabbit leg and thigh pieces, whole
2 large onions, sliced
2 vegetable stock cubes
Celery, diced
Salt and pepper to taste
Gravy granules, for thickening

How to Cook

Put the onion in the casserole dish and place the rabbit thighs on top. Mix the stock cubes in a pint of boiling water and pour over the contents in

the dish. Place lid on dish and pop in a pre-heated oven at 180°C/350°F/gas mark 4 for 2 hours.

After this reduce the oven heat to 160°C/325°F/gas mark 3, adding celery, and cook for a further 3 hours. The casserole should be removed from the oven every hour or so for stirring and to check liquid content.

Towards the end of the cooking time, add gravy granules to thicken the dish and test meat to check if it is tender and fully cooked.

Serve with mashed potatoes and seasonal vegetables.

Woodpigeon – Preparation

This really is a simple job and requires little or no plucking if you are only using the breast meat.

A tip before commencing to breast the pigeon is to cut off the wings as close to the breast as possible with game shears. This makes the task of breasting much easier, not having to contend with floppy wings getting in the way as you carefully cut the skin away and peel back before cutting the breast meat from the keel of the breastbone.

Firstly, place the pigeon on a worktop such as a chopping board, facing breast up, then starting from the top just below the crop, pierce the skin and carefully slice down the centre with the blade, following the top of the breastbone. A tip is to pluck a few downy feathers off to find the skin for the blade. Once you've made the cut, carefully tease the skin back from the flesh and cut away to the side if necessary, peeling this back with your fingers to expose the dark breast meat found on either side of the large, solid breastbone.

As a hunter, marvel at the size and strength of that keel and consider now why full-on chest shots are so easily deflected? Once you've exposed the breast meat carefully, slice down the side and against the keel, and then follow the natural guideline of the breast meat around and under the wings. Repeat for the other side of the breast.

You should now have two large, chunky, teardrop-shaped pieces of meat. If not using immediately, rinse, dry and wrap in cling film or a freezer bag and freeze for future use.

Incidentally, the same process applies to breasting a collared dove, and don't discount this dove as the meat, though a tad tougher, is

considered by some to be even tastier than woodie. It does require a longer, slower cooking time, and to moisten and soften the breast meat it benefits from being marinated in olive oil and herbs for 24 hours.

Recommended Recipe – Wonderful Woodpigeon

Woodpigeon makes a fine addition to stews, casseroles and game pies, but if you like to taste the pigeon as it should be tasted, I recommend that you prepare it as a starter because it makes a lovely dish on its own. It has a strong, distinctive flavour and one that deserves not to be hidden amongst other meat, or covered up with rich sauces or heavy seasoning.

I can't take any credit for this as I only discovered it when fortunate enough to be served it as a starter at a posh do. After tasting the woodie on its own, I was hooked and I must admit this is certainly the way I prefer it.

Ingredients:

2 woodpigeon breasts

2 tbsp olive oil

How to Cook

The cooking process is a simple one. First, heat a heavy-bottom frying pan then add a little amount of oil. When the oil is hot, carefully place both halves of the pigeon breast into the oil to flash fry on either side to seal in the goodness. Cook for approximately 3 minutes a side. When done, leave whole or carefully cut into thick slices.



Breasting woodies is a simple matter – but use a sharp knife

Serve with a light salad of mixed leaf, cherry tomatoes and cucumber with a few mixed herbs. Depending on personal preference, liberally drizzle on a balsamic vinegar dressing or a generous dollop of garlic mayonnaise – wonderful.

Incidentally, even if the woodpigeon is to be put into a stew I still prefer to sear the meat by flash-frying to keep in the flavour before fully cooking. If using in a casserole or pie, cut the half breasts in two before

searing – when done, remove and place in the casserole dish with other meats.

Everybody seems to have a recipe for pan-fried pigeon, and I'm no exception, but if cooking this way, and the same advice applies for most meats, don't overcook or else the meat goes rubbery.

For another succulent way with woodie I recommend the following

Recommended Recipe – Woodpigeon, with Roasted Peppers and Mushroom

Ingredients:

1 red pepper, sliced
1 yellow pepper, sliced
1 large onion, thickly diced
4 large grilling mushrooms
2 tbsp olive or vegetable oil
6 pigeon breasts (whole halves)

How to Cook

Place peppers and onion on baking tray and pop into pre-heated oven at 200°C/400°F/gas mark 6. After 20-25 minutes prepare mushrooms, place on a baking tray, brush with oil and pre-heat grill. While grill is heating up, place pigeon breasts in hot oil in a frying pan. Now put mushrooms under a medium heat grill. Cook mushrooms and pigeon breast for 4-6 minutes depending on taste.

Remove everything from the oven and grill and serve as follows.

Either as a mixed dish on a bed of rice or alternatively, as a starter with a mixed crispy leaf salad. Garnish with vinaigrette dressing and serve with rustic wholegrain bread rolls.

Squirrel – Preparation

Though not something you'd expect Jamie Oliver to whip up, or indeed find in a supermarket, squirrel is quite tasty, and if you've shot a few it's a pity to waste them. In fact, I don't know why it's frowned on so much in the UK as our American cousins are very partial to a bit of squirrel.

The main problem that deters most people is how to prepare them. The best way is to think of it as a small, skinny rabbit. First gut as you would a rabbit, and skin as you would with rabbit but only worry about fully pulling back the fur off the back legs and the skin up to the forelegs. Then cut the body, straight across two thirds up along towards the head. This leaves you with two hind legs and some meat on the lower carcass – the saddle.

Incidentally, you'll see recipes with names such as; squirrel fricassee, deep-fried squirrel or just plain and simple, pan-fried squirrel, similar to the one I show below. They're all very much of a muchness, but with slight changes in ingredients or coatings. As you'll read at the end of the section, with squirrel, I prefer to cut the meat into pieces and add to other off-cuts of game to make a nutritious and mouth-watering game pie or casserole, but I will here give a couple of simple squirrel dishes.

Recommended Recipes - Pan Fried Squirrel in Breadcrumbs

Ingredients:

3 squirrels, use only legs and thighs
1 egg, beaten
2 tbsp olive oil
Breadcrumbs

How to Cook

Obviously, as the squirrel is so small you need at least three per person, preferably a half dozen medium-sized bushy tails, and the only meat needed for this recipe are the back legs and thighs.

Coat each leg and thigh in the beaten egg and then coat in the breadcrumbs. Place these in a pan of hot oil, turning frequently to avoid burning. After the initial browning, turn the heat down and fry slowly for a good few minutes to ensure that the squirrel is thoroughly cooked and crispy.

When done, serve with a salad garnish and add a dip such a garlic mayonnaise or sour cream and chives.

Recommended Recipes – Quick & Easy Squirrel Stew

Ingredients:

2 squirrel saddles, meat cut off the bone into small chunks
2 tbsp of olive oil
1 beef stock cube
1 small tin of stewing steak
1 large onion, chopped
2 cloves of garlic, chopped
1 small tin of garden peas
1 tin of sliced carrots
Dried mixed herbs
Worcestershire sauce
Black pepper
Cornflour

How to Cook

In a deep, heavy-bottomed pan, fry the squirrel chunks in the hot oil until brown, to seal in the taste. Then add onion and garlic and cook until soft. Add the beef stock mix and simmer for approximately an hour.

When meat is tender, add the tin of stewing steak, tin of garden peas (drained), tin of sliced carrots (drained), Worcestershire sauce, dried mixed herbs, and liberally sprinkle with black pepper. Now simmer adding cornflour to thicken the stew. If you've cooked correctly, there shouldn't be too much liquid left so it should thicken easily.

Serve piping hot in a dish with rustic rolls or crusty fresh bread.

With all that game at our disposal, when you've prepared other dishes what to do with those frozen off-cuts you've saved – or should have? Simple – make the ultimate airgun hunter's game pie, and believe me, once you've tasted this it'll make you more determined to fill that game bag!



Airgun Hunter's Game Pie – now who wouldn't want some of that?

Airgun Hunter's Game Pie

Ingredients:

One rabbit – jointed, and cut off the bone into chunks

4 woodpigeon – breast halves cut across into chunks

4 collared dove – breast left in halves

2 jointed squirrel, off the bone cut into chunks

2 large carrots, sliced

8oz mushrooms, sliced

2 cloves of garlic, chopped

Worcestershire Sauce

Gravy granules

2 large onions, sliced; in fact, add any root vegetables you prefer. I sometimes add some thick cubed potato for good measure.

Frozen puff pastry (saves hassle and I'm no Hugh Fearnley-Whittingstall!)

How to Cook

Mix together the raw vegetables and put these with the mixed meat pieces in separate layers into a large casserole dish. One layer of mixed vegetables, then a layer of mixed meat, and repeat the process until all ingredients are layered in this manner in the dish. In between layers add a dash of the Worcestershire sauce and sprinkling of black pepper, not forgetting the garlic.

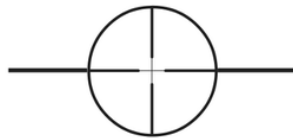
Mix the stock cubes in a pint of boiling water and pour over the contents into the dish. If you need more water to cover the ingredients, add now. Place the lid on casserole dish and pop into a pre-heated oven at 180°C/350°F/gas mark 4 for 1 hour. After the first hour, reduce the oven heat to 160°C/325°F/gas mark 3 for a further 3–4 hours. The casserole dish should be removed from the oven every hour or so for stirring and to check liquid content.

During the cooking period, take out a portion of the frozen pastry for defrosting.

Towards the end of the cooking time, add gravy granules to thicken the dish and test meat to check if it is tender and fully cooked. If it is, turn up the oven to 220°C/425°F/gas mark 7. Now it's time to roll out the pastry following guidelines on packet, and then place pastry on top of the casserole. Return to oven and cook for a further 25-30 minutes, whereupon the pastry should have risen to form a crispy, golden brown crust.

Serve with mashed potato and extra vegetables of choice.

So there you have it, my recipes might only be basic but they're a good basis for you to try what you've harvested from the land yourself with the air rifle. In fact, nothing tastes better than a rabbit taken after a long, nerve wracking stalk, or a hard tricky shot on a woodie in the trees. Bon appetit!



The Law, Safety and You!

There are actually a selection of laws that govern the use of air rifles. By and large, misuse an air rifle, or any firearm for that matter, and you are governed by the same rules of conduct. These are found in the Firearms Acts of 1968–1997 and the Wildlife & Countryside Act 1981. Add to that the penalties that can be imposed on you for breaking the law under the Criminal Damage Act 1971, Public Nuisance Act, or Anti-Social Behaviour Bill et al and you're going to suffer the consequences.

Also, the law on the use and purchase of airguns has changed since the first edition of Total Airguns was published in 2005. These changes were included in the 2007 VCR (Violent Crime Reduction) Act – one being that individuals must be 18 in order to buy an airgun legally.

The Act also changed the way in which airguns could be bought from shops. From 1st October 2007, shops selling airguns as part of their business became Registered Firearms Dealers (RFDs) and you can now only buy from them direct, and not by mail-order.

This restriction only applies to airguns and silencers, not to scopes, mounts or any of the huge range of airgun-related accessories available from gun shops; neither does it apply to private airgun sales.

Sale of an Airgun from Person to Person

The bill requires that all sales be in person. This applies when a person sells an air weapon by way of trade or business to another person in Great Britain who is not registered as a firearms dealer. It does not apply to transfers, so airguns that have been repaired need not be returned in person, but can be sent by carrier. The restriction does not apply to sales

that are completed outside Great Britain, for example, when air weapons are sold by a person in another country by mail order or via the Internet and then posted to someone in Great Britain. Where this section applies, the buyer and the seller or his representative (the sellers' servant, another RFD or his servant) must be present in person so that the final transfer of possession is face-to-face.

We must always remember that when used unlawfully, an airgun carries the same legal status as shotguns and live-ammunition guns. Misusing airguns will result in huge penalties, including terms in prison.

So here, as they stand, are the laws. Whilst all shooters need to adhere to them, I leave it up to the individual to decide if the law is indeed an ass!

The Wildlife & Countryside Act 1981

It's meaning and relevance to the airgun hunter: The quarry we are allowed to shoot with an air rifle of a suitable power had remained unchanged for many a moon – longer than the Act itself (the Countryside Act, not the one passed in 1981). It has been changed in relation to what is deemed legal quarry for the airgun hunter using a rifle with a power not exceeding 12ft lbs.

Be aware that this may change again. The Scottish leadership have more than once shown their willingness to require all air rifles (irrespective of power) be put 'on ticket'. However, the voices of our sport keep us informed; any updates are immediately put on the BASC website, so if in doubt always head there for the most recent news and information.

Incidentally, according to the act, all species of bird, their eggs and nests are protected, but every year the government issues what is known as the 'Open General Licence' that allows certain species of bird - deemed pests - to be killed. It also makes reference to animals on the unprotected list due to the fact that their population is in need of management and/or the animal is classed as vermin.

All have been listed at the beginning of the book but I mention them in entirety here with pertinent notes to their culling. The corvids (crow

family) including magpie, rook, jackdaw, crow and jay – the latter, however, is currently protected in Northern Ireland.

Now to a genus of bird much more straightforward to deal with in terms of our rights, well even here I must add ‘use your discretion’, the winged felons being pigeons and the dove family. In the W&C Act this makes mention of woodpigeon, feral pigeon and the collared dove – the latter like the jay being a protected species in Northern Ireland.

As some pest species of birds do resemble protected species, especially from certain angles and in poor light or weather conditions, as I always say; err on the side of caution and don’t shoot until certain. It’s every airgun hunter’s responsibility with all animals and birds to ensure that he can clearly identify all protected species, as it is the unprotected ones you target. Before we leave feathered felons, the law doesn’t say the airgun hunter isn’t allowed to shoot certain game birds but the practice is deemed by many to be unsporting.

Personally, I say if the landowner or gamekeeper allows you to take the odd one or two for the pot, if shot cleanly, then it’s acceptable albeit a little out of the norm. However, you must hold a game licence and the following species can only be shot within the season allotted to them; they are pheasant, partridge, grouse (red and black), ptarmigan, common snipe, woodcock and golden plover.

In respect of wildfowl, while these don’t require a game licence, they can only be shot during their allotted season. These are ducks including; mallard, tufted duck, teal, wigeon, shoveler, pochard, pintail, goldeneye and gadwall.

We are also allowed to shoot geese, including; Canada goose, greylag and pink-footed goose - I bet that surprised a good few readers! - and let’s not forget the troublesome twosome dealt with in Quarry Files, the coot and moorhen. Incidentally, I feel that some comment should be made on areas of the country where local restrictions apply, such as the Norfolk Broads, where it is illegal to use airguns on areas of water and land controlled by the Broads Commissioners. So if in any doubt, as always – check your local byelaws.

Now, whilst I will refer over to shooting organisations at the end of this section it’s worth noting that the BASC does actually recommend that wildfowl only be shot with shotgun. My views are, certainly any

legal quarry species when in flight should only be tackled with shotgun, but as for a 'one shot, head shot, clean kill' on a stationary bird - why only let the 'scatter blasters' have duck or pheasant on the menu?

Now to the furry animals on the list, and whilst the fox is included but only for suitable calibre and power firearm, I'll not comment other than to say this crafty predator certainly needs a bullet or buckshot; although many feel they can clear up cubs with a high-powered air rifle, I'd still say use a .22LR silenced rimfire in the least, and at sensible range. However, with the new calibre of super high-power air rifles coming on to the scene, that's not as cut-and-dried in some situations where a live-round bullet gun might not be allowed.

Now to the vermin we can cleanly dispatch with a pellet fired from a 12 ft lb air rifle.

These are; rat, rabbit, most species of mouse (not including the dormouse family) the grey squirrel, weasel, stoat, mink, feral cat (not including the Scottish wild cat) and the hare. Now we've come to a few species that often cause some controversy. These being feral cat and the hare because although legally deemed quarry species, they aren't encountered that often, and particularly in the case of the hare, still not as widespread or as plentiful as it once was in many parts of the UK. However, specifically in relation to the hare, if the odd one crosses your path, let it go on its way as it adds to the variety of wildlife and is a noble animal that has a tough enough time living all its life above ground. However, if they're plentiful and encountered by the airgun hunter using a hi-power FAC air rifle – that's certainly a powerful enough firearm to dispatch it capably at sensible range. Stoats and weasels hardly ever keep still, so they're certainly better served by the shotgun or trap, and as for the mink - I've mentioned previously I've had cause to shoot them but mainly when dispatching them after they've been caught in live-catch traps.

Now to the legalities of the actual shooting of all quarry species deemed as pests.

Pests can only be shot if you have the landowner's permission to shoot on the land he actually owns or presides over. If you don't, you can be charged with armed trespass and if you shoot any quarry, charged and

prosecuted with poaching. Both carry hefty penalties – especially armed trespass!



Armed trespass carries a hefty penalty

Add to this the fact that even if you have the landowner's permission to shoot you can only do so if the species is actually a pest – this is what the powers that be say on the matter

The species is classed a pest if:

1. It's threatening other protected wild bird populations.
2. Endangering public health and/or spreading disease.
3. Causing damage to crops, livestock, fisheries, young trees or waterways.

Sift through those classifications outlined, and you can be in no doubt why we can target rabbits, rats, wood pigeon, feral pigeon, magpies and crows, to name but six, now can you?

A very important point is that there are laws not in the W&C Act that govern cruelty to animals and the purposeful wounding of any animal –

even those classed as pests. Again, prosecution can carry heavy penalties. I'll outline a hypothetical scenario to illustrate this point.

Say you legally shoot a woodpigeon or magpie in your garden or on your shoot, and it flies off and lies wounded in a neighbouring garden or on private land you have no permission to be on. Should it be found, and the finder takes it to the authorities – such as the police or RSPCA - with an accusation that you shot it wilfully - you could, if found guilty, be charged with a crime.

In fact, it's a very contentious subject to shoot birds in your own garden as being able to prove they are a pest species causing damage in the garden is very difficult. Also, few if any neighbours would accept someone shooting birds in gardens – remember, the majority of the non-shooting public don't know what is considered, by law, to be 'a pest' – except maybe the feral pigeon.

Consider the following; shoot a rabbit and it goes under a fence on to private land that you have no right to shoot over. Say it is injured to the point where it can run no further, but needs a coup de grâce for merciful dispatch, and you nip over the fence to administer the final shot and retrieve it. If you do go over with your air rifle, you can be charged with armed trespass. If you go over and just retrieve the animal, legally it's still trespass and you could be called to prove that you weren't poaching! What of the rabbit that kicks its last on a public footpath after legging away from a wounding due to an unfortunately misjudged shot? Woe betide you If you're the one accused of shooting it and it has been found by an animal lover. You might think these scenarios mentioned very unlikely or judge them as grey areas, and in some ways, they may be, but in reality these are situations that can so easily happen. To avoid straying into these minefields I feel it is advisable here to remind hunters never, no matter how tempting it may seem at the time, to venture on to land where you don't have a right to be.

Certainly, if you're the airgun hunter who leans over another farmer's gate to nab an early morning rabbit with a naughty shot as it sits on a dirt track on another's land – you poached that rabbit – no grey area there, and in the process you committed several offences in the shooting and retrieving of it.

Even when on land you have a right to shoot on, never - repeat never - shoot any species of legally deemed vermin unless you have a clear, safe shot and one that to the best of your knowledge should cleanly dispatch the intended target - as always – if in doubt – then don't shoot!

That basically covers the W&C Act as it stands at present, but remember it's possible that these laws could be amended. Certain quarry species may be added, but certainly more likely taken off the list governed by the Open General Licence. So consult the relevant literature, organisations, authorities and websites.

Age Restrictions and Laws Pertaining to Ownership, Transportation and Other Use

These are quite clear-cut and need little if any comment from me.

- If you are under 14 years old you cannot buy, hire, be given or own an airgun or airgun ammunition – that's right – even pellets. However, an under-14 can use an airgun but only if supervised by someone 21 years or older, and you must only shoot on land that you have permission to shoot on, or at an approved shooting club and the rifle is only used for target shooting at that club.

Now I did say I wouldn't comment, but here I must have a say on what I feel is a great loss to the sport. This law is quite frankly not only unfair (what's new?) but doesn't work! Few under-14s, unless they have older brothers, will be able to shoot, and, let's be realistic, those older lads have little time to help little Johnny when they're at an age they could well be more interested in cars, girls and having a drink than family matters. To be totally realistic, that older sibling will have a life of his or her own and quite frankly, have zero interest in air rifles or shooting. Also, we now unfortunately live in a social climate of part-time parents, particularly fathers – that's if they're on the scene at all. In that respect, some under-14s will never get the chance to try shooting with an air rifle, and that comradeship of youthful shooting we enjoyed is also effectively removed. Then again, this law is supposedly designed to stop kids getting up to no good with an air rifle; it's a pity that it won't stop them sitting around on a street corner scaring elderly people and smashing something

out of boredom. To think, a large part of the reason we were given our first air rifles was so that our parents knew what we'd be up to, and it gave us something to be interested in, gave us a pride of ownership and something to respect using. Hell, we got air rifles to keep us out of mischief!

When we were kids, getting our first air rifle was part of growing up. You got a fishing rod, an airgun, then you discovered girls and the first two went out of the window. Okay, I'm only half joking, but what I'm trying to illustrate is that a large part of the culture of growing up has been lost. When people like me were kids, we could go anywhere, with some exception but not anything like the Draconian rules that govern freedom of movement now, and with our air rifles to shoot rats. We did no harm. Obviously, there was always the idiot who did something daft with his airgun, but by and large, he grew out of it or if not, just grew up and did other stupid things often resulting in committing further crime. In other words, that person would have done something stupid or malicious no matter what he had his hands on or was involved in.

Back to the law as it now stands, and the reasoning of 'keeping guns out of the hands of youngsters!' The knock-on effect of this law pertaining to youngsters may seem to have little importance to long-term shooting adults, but think on this: The law effectively prevents a whole new generation of youngsters from being able to grow naturally into shooting, as we did. If it was your thing, you carried on shooting; if not you looked to another sport, hobby or pastime. It's that simple. Robbing generations to come of the experience of shooting in their formative years is a terrible pity, and they won't go on to discover it at a later age. Quite frankly, even back then we grew up too quickly. As you approach 17, shooting air rifles is probably going to be the last thing on your mind. Don't be misled; they're chipping away at our sport from the ground up. Sorry that turned into such an issue but I think we should all be aware what is happening. Now, back to the law ...



If you don't have permission to shoot on the other side of the fence and take a shot, even if you miss you're breaking the law

- No person under 18 can be given an airgun as a gift. On the outset that seems sensible enough, but consider this. Parents or relatives, who give their under-18 an air rifle, are themselves breaking the law, but reach the magic age, and between 14 and 18 you can be given, or loaned an airgun and ammunition but you can't buy or hire one yourself. Now doesn't all that make sense? Right, from now on I won't comment because I'm getting far too opinionated and importantly, if I carry on we'll never reach the end!
- If an air rifle or pistol is used on private land including the garden of a private dwelling the pellets mustn't stray outside the boundaries of that land. This is the reason we need solid backstops for the home-target plinking range. If it does go 'zinging' out of bounds, this is now also an offence under the Anti-Social Behaviour Act, carrying a maximum £1000 fine as a penalty.
- An air rifle can only be carried or transported by someone of the appropriate age, or one who is properly supervised, in a public place when covered with a securely fastened gun cover – this means a gun bag - which should be zipped closed at all times.

- Never carry a cocked or loaded gun in a public place out of or inside a gun bag. Now this is one to be very cautious of as a rifle is deemed loaded if it has a pellet or even a cleaning felt in the barrel and for a multi-shot if it has a magazine - even an empty one - in the action. Always remove the magazine from a multi-shot and store separately while travelling to and from the land you are legally allowed to shoot over. As for the former, you should never have cause to carry a cocked rifle and/or a single-shot rifle with a pellet in the breech; a simple rule of safety. The magazine of a multi-shot should be empty even when not with the gun as this in itself is deemed a loaded weapon!

There are more but they come under a broader rule of gun law that we will now try to decipher, but to recap: Generally speaking, for the under 14s, very strict rules apply to airgun use. Between 14-18 years of age, for all practical purposes, you must be supervised by a person over 21. However, when 18 you can purchase an air rifle and ammo - the air rifle not having a power exceeding the 12 ft lb UK legal limit. It can only be used on land over which you have written permission from the owner to shoot, and don't take it for granted that the person who signs your written permission is the owner - double check! I'm not saying go behind any body's back snooping, but do take the trouble to ensure that written permission is as it should be – correct and legal!

Now to something that doesn't affect hunters as they're virtually all too low-powered to use for hunting, but should be borne in mind if you happen across one. The law has now deemed airguns that use the self-contained air cartridges such as Brocock, Saxby & Palmer etc., need to be on an FAC. If you own one and didn't get an FAC for the time limit stipulated in April 2004, or hand it in – well, you're now breaking the law and can be sentenced under the Criminal Justice Act 2003.

The next set of guidelines are taken from the Firearms Act and are relatively straightforward as they pertain to responsible usage of an airgun or firearm. Also others that follow are now in force as they're included in The VCR Act passed in 2007

- It's against the law for anyone to have an airgun in a public place unless they have some proper reason for doing so. Public places are

any areas where the general public have legal access. These are roads, footpaths, canal towpaths, and public parks - any such areas, and in relation to this, never presume a bridle path or footpath is not used just because you rarely see anyone on it. The time when you do could be the time a costly and dangerous mistake is made!

- It is an offence for anyone under 18 to carry an air weapon unless: they are under the supervision of a person aged 21 or more; they are on private land and have permission from the occupier; they are shooting as a member of an approved club; or they are shooting at a shooting gallery for miniature rifles.
- It is an offence for any person, regardless of age, to be in possession of an air weapon in a public place without a reasonable excuse, which might be carrying a gun to and from a target shooting club, or to and from land on which you have permission to shoot. It would also include taking a gun to and from a gunsmith for repair or service, or taking a new gun home from the dealer.



Always know the exact location of footpaths, bridleways and any public thoroughfare on the land you shoot over

It is an offence to fire an airgun or any firearm within 50 feet of the centre of any roadway or public thoroughfare, which includes the pavement. This is seemingly straightforward but there is one exception. If you shoot in your back garden on a plinking range you will likely be within this distance. This being the case, you should be out of view from

the public, behind a tall screen of hedge or fence. You should also be shooting away from the road. If in doubt about your plinking area, consult your local police force; they can advise on your rights. While on the subject of plinking, never presume that your neighbour is accepting of your participation in the sport; some will, but more likely just as many won't. Shoot at reasonable hours and don't shoot for hours on end. This may seem like an infringement on your rights, which in some ways it is, but have consideration for others and uphold neighbourly relations. The continuous sound of a pellet striking a backstop can become unnerving and irritating and is as annoying as any loud music. Think on that carefully in relation to the times when you practise.

That's how the law stands at the moment. Whether it will change is up to the governing bodies and unfortunately, these changes are usually driven by public acts of stupidity.

Hopefully, commonsense will prevail and Whitehall will realise that the general shooting public go about a satisfying and challenging sport responsibly, and that airgun hunters and sport shooters alike perform a helpful and necessary service to the country community, helping to maintain and protect the natural balance of the great outdoors.

Although a few basic rules of safety have been outlined elsewhere, here are the important ones to which we must all adhere for safe gun use.

- Always treat an airgun as if it is loaded and cocked. Never presume it isn't.
- Always store an airgun securely in a safe place, always storing it uncocked and unloaded. Ensure that they're out of sight from prying eyes and never let young children near them. Please refer back to the section on the Home Office Guidelines as they were fully explained in Chapter 15.
- Never load or cock an airgun until it is safe to fire it.
- Never point an airgun at anyone – even if unloaded.
- Never touch, pick up, or attempt to use someone else's air rifle without their permission.

As a matter of course, whether you are hunting or getting kit together, make a point of always checking that a rifle is safe and unloaded before

putting it in a gun bag. Also check again immediately that you remove it from its case.

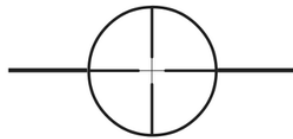
Never shoot beyond your seeing distance; for example past the end of a building, wall and if in open country, past the end of solid hedgerow.

So, at last that does bring this section to a close. However, I will mention that you should always carry your written permission with you whenever you go shooting on the land it relates to, and remember that although the statute laws previously stated apply to you, you also have to bear in mind that should the unexpected or unimaginable happen due to mishap or accident, you could find yourself facing a civil action for damage to property or, worse still, unintentional injury to persons or livestock.

In my opinion, every shooter should have third-party Public Liability Insurance. You can obtain this privately, but upon joining one of the associations that represent shooters interests you can gain insurance as well as being part of a public voice on the sport. These are the British Airgun Shooters Association (BASA) or the British Association for Shooting & Conservation (BASC)

These are currently the two main associations representing airgun shooters within their ranks, along with other sport shooters.

I'd also like to mention and give credit to the Airgun Education and Training Organisation (AETO) for the good work that they do in educating and training people in safe shooting practice in relation to the use of all airguns.



Farewell and Thanks

Now updated, once again I can say: “So there you have it – *Total Airguns*”. I hope you have enjoyed this version and found much to interest, encourage and enhance your airgun hunting. I again make reference to the demanding sport of Field Target (FT) shooting, and although no section is devoted specifically to that discipline, because the book mainly concentrates on the use of air rifles for hunting, I’ve always realised and recognised the shooting skills required to be successful in that sector of the worldwide airgun shooting community and I pay due respect to those who compete.

At the time the original version of ‘TA’ was launched, Hunter Field Target (HFT) was pretty much in its infancy, but due to the impact it has had with many airgun enthusiasts, HFT needs to be credited as it has done so much good for the sport of airgun shooting. Indeed, as an established shooting discipline in its own right, the fact that it has retained a firm ‘hunting’ slant is, I feel, a great credit to all those who organise, sponsor, participate and attend any HFT meeting. This time around, I can also appreciate the many unsung ambassadors of our sport, including the almost ‘left-of-field’ air rifle shooters, who use airguns not only for sport but also in their work, including the FAC hunting pest controllers who need specialist air rifles which the trade can now supply. On reflection, I feel I am continually realising just how far I have travelled and progressed in my own shooting career. It has been one that has seen much change in the quality of air rifles, scopes and equipment due to advancements in all manner of technology that is readily available for us all to use to help us have greater success in our chosen sport.

Now this newly-updated book really is at an end, so I’ll sign off by saying this: Respect the countryside, respect the people you shoot with, the land you shoot on and especially those who are kind enough to let you do so, and no matter what the situation – indoors or outdoors, ambush shooting or stalking – shoot well, shoot wisely and most of all

shoot safely! Before I express my thanks to all those who have helped and encouraged me in so many ways, I'd first like to offer an extra special 'No Thanks' to certain elements of 'the system', and those who tried to pull me down, hassle, stress, annoy or hinder me in any way. You know who you are. It hasn't worked, has it? Nice throw, but you still missed!

I'd like to give a very heartfelt thanks to the following: (names and places appear in no particular order):

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Colin McKelvie (R.I.P.) sub-editor of the first edition of *Total Airguns*, a life-long outdoorsman, sport shooting enthusiast and a greatly missed spokesman for the countryside, its wildlife and all it encompasses.

Tony Wall, Steve Pope, Glynn E (MIA), Chris A, Richard A, Howard H, Terry Almond, Dave Mills (AETO), Sammie & Gary Cooper, Dave and Derek Rose, Ben Taylor, Richard Bingham and of course a very special thanks go to Tim McAvoy, Jan and family who've helped more than they've ever needed, or I suppose ever expected or wanted to! In fact, huge thanks go to all at T & J. J McAvoy Gunsmiths. Cheers Tim.

For contributing and supplying info and images in Ch 14: Jerry Moss of the Penrith and District Red Squirrel Society - the good work he and his fellow workers do shouldn't go unnoticed: www.penrithredsquirrels.org.uk.

My gratitude still holds for James Marchington for that first-ever acceptance slip for a magazine article.

Who can forget Richard North's impact on the airgun scene? Even though no longer actively in the airgun industry he still remains one of the true inspirations that fewer by the year seem to follow. Thankfully, however, there are others that still have drive not dissimilar to his.

Bill Sanders (R.I.P.)

Tony, Bob and Trace at Sandwell Field Sports; John 'The Guru' Bowkett, Steve Rowe, Paul Sim and all at 'N.o.L,' Jamie Ransome, Tom Whitman and all at 'DGI Ltd', Glenn Lewis, Tony Belas (a man always

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Matt Clark, Terry Doe and to all magazines and their editors, who not only have time for my scribblings and wittering, but even sometimes put up with my downright ranting! Also, not forgetting the fact that they continually support and serve the sport and trade.

For moments in time, captured on picture, film or tape ... Oops, I suppose that should include 'any digital media' to be more in-keeping with the book.

Portmeirion (The Village) – friends made, and all there for helping me and 'A.N. Other' have magical, happier times that have now become very treasured memories – the likes of which I'll never see again.

My thanks and feelings of gratitude that are way beyond special go to my sister.

Feelings I know the meaning of the more that time passes and ones that no one else deserves to know go to my mother and father – God rest their souls.

In fact, to all those who've now gone, from loved ones, cherished ones, friends and the 'fallen over' with ones – yeah, you will always be remembered.

If I've forgotten to list anyone who deserves a personal mention or further after an acknowledgement all I can do is apologise, but in my defence – blame it on far, far too much rock 'n' roll.

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About the Author



Pete Wadeson is one of Britain's most highly regarded airgun hunters, and is also an established shooting correspondent and photojournalist. As a lifelong shooter and outdoorsman with over twenty five years' experience of hunting with all manner of sporting air rifles and firearms, Pete has amassed a wealth of practical and technical experience. He has certainly emerged and earned his stripes as the foremost contemporary authority on hunting with air rifles.

He regularly contributes to virtually all 'in-store' publications that cater for the airgun enthusiast. Though he doesn't 'boast' about his

‘piscatorial prowess’ he’s also a very accomplished ‘specialist’ pike and predator angler.

During his time writing on airguns and firearms, he’s had many very informed and respected articles published in magazines such as *Airgun World*, *Airgun Shooter*, *Sporting Shooter*, *Shooting Times* and many others including his regular features, reviews and articles that appear in *Airgunner*, *GunMart*, and *Shooting Sports*. Also others that are trad-oriented, monthlies, bi-monthly as well as being often enlisted as the ‘Airgun Consultant’ for various Airgun Annuals that are periodically published in any given year in the UK, such is his recognition as the leading authority on the subject. His continued and ‘untiring’ passion for the sport of air rifle hunting is once again shown here in the Second Edition of his seminal book – *Total Airguns*.

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